Self-perceived sociosexuality and mate value asymmetry in heterosexual romantic relationships

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ABSTRACT: Previous works have shown that sociosexuality may affect mate choice and correspond to partners' mate value (MV). However, there is a lack of studies that directly show how a difference between both partners' mate values (MVD) relates to reproductive strategies. In this study we investigated a possible link between self-reported measures of individual differences in human mating strategies (SOI-R) and self-perceived mate value asymmetry (difference between partners' MV) in heterosexual romantic relationships.
Two hundred forty-nine heterosexual participants (all in romantic relationships) completed an online questionnaire. Their sociosexuality was measured using Revised Sociosexual Orientation Inventory (SOI-R) (Penke and Asendorpf 2008). The assessment of the participant's and his/her partner's MVs were obtained using the MV measure by Graham-Kevan and Archer (2009). MVD was calculated by deducting the assessment of partner's MV and MV self-assessment.
Our results revealed that in men, with the increase of the discrepancy in mate value in favor of their female partners, male global sociosexuality and sociosexual desire decreased. In contrast, in women no significant correlations were found.
We propose several possible explanations, based on evolutionary psychology, discussing our results within the context of potential benefits for reproductive success in both sexes due to the lower male sociosexuality.

KEY WORDS: reproductive strategies, mate value difference, mate choice

Introduction

Sociosexual orientation concerns individual differences in willingness to engage in uncommitted sexual relationships (Simpson and Gangestad 1991). Individuals who display an unrestricted sexual orientation tend to get involved in sex without any indicators of emotional bonding, while those with restricted sexual orientation do not (Simpson and Gangestad 1991; 1992). According to the parental investment theory (Triv-

ers 1972) women, compared to men, bear elevated costs of reproduction and consequently should be more discriminating and sociosexually restricted than men. While females are more willing to have sexual relationships with the possibility to create long-term relationship, males are more prone to uncommitted sexual intercourse (Buss and Schmitt 1993; Chara and Kuennen 1994; Clark and Hatfield 1989; Kenrick et al. 1993; Schmitt and Buss 1996; Surbey and Conohan 2000). Both sexual strategies are the results of different reproductive constraints, for instance, for males, the number of fertile women, that men can successfully inseminate or, for females, obtaining males who are able and willing to invest resources in women and their offspring (Buss and Schmitt 1993).

In order to maximize reproductive success, individuals seek and desire specific values in their potential mates. These mate values may be defined as indicators of the degree to which each mate promotes the reproductive success of the other mate (Symons 1995). Individual aspects of this value concern such attributes as, for instance, physical attractiveness, personality and resources (Pawlowski 2000). Depending on sex differences in reproductive strategies, different mate values may be preferred. Since usually men maximize their reproductive success by increasing the number of fertile sexual partners (Betzig 1986; Dawkins 1986 cited in Buss and Schmitt 1993), fertility and reproductive capacity indicators (such as physical attractiveness, youthfulness and good reproductive health) should be more desirable by them (Buss 1989). As females invest more in their offspring, they should value, in general, indicators of resource acquisition (Buss 1989) and prefer males

with high social and economic status, providing food, territories, shelter and protection in order to decrease the discrepancy between male and female parental investments (Trivers 1972). Despite the above mentioned sex differences in mate preferences, both physical attractiveness and earning capacity are still the most desirable characteristics for both sexes in mate choice (Buss and Barnes 1986; Li et al. 2002).

Differences in reproductive strategies seem to be visible not only between sexes, but also some individual variation may exist within the same sex. These individual intrasexual differences in sociosexuality have even more variability in range than those between men and women, and may also interact with mate preferences and mate choice (Simpson and Gangestad 1992). Consequently, human mating strategies may be calibrated to different aspects of MV (for more discussion see: e.g. Hill and Reeve 2004). For instance, females who choose mates basing on markers of male physical attractiveness, such as masculinity, may be more unrestricted (Provost et al. 2006; Provost et al. 2008). Since masculinity is widely regarded as an indicators of male "good genes" and heritable benefits (review: Gangestad 1993; Little et al. 2011), these women may focus on biological quality achieved from extra-pair copulation instead of paternal investments. Similarly, males who do not invest in offspring should prefer short-term strategy as well as mates with attributes correlated also with fertility and biological quality in terms of mate value. Contrary, both males and females who focus on parental investments in offspring should demonstrate restricted sociosexuality and choose mates based on partners' restricted sexual orientation and willingness to invest in offspring (Simp-

son and Gangestad 1992). Moreover, Simpson and Gangestad (1992) revealed that even when the relationship is already established, sociosexual orientation (unrestricted *vs*. restricted) still relates to attributes reflecting some of the partner's mate value (i.e. physical attractiveness and higher social visibility *vs*. loyalty and faithfulness).

Apart from different individuals' mate values, also the discrepancy between mate value of partners may be reflected in some of the mate choice's outcomes, such as relationship satisfaction (Nowak and Danel 2014) or mate retention tactics (Buss and Shackelford 1997; Figueredo and McCloskey 1993; Graham-Kevan and Archer 2009). Since sociosexuality may affect mate choice and its outcome (Kardum et al. 2006), and reproductive success could be promoted by partners' mate value, we predict that sociosexual orientation would be related to relative partner's mate value in order to get easier access to and/or to retain a relatively better quality partner. This mate value should be defined in general terms by the most desirable characteristics in mate choice for both sexes (e.g. physical attractiveness and earning capacity indicators; Buss and Barnes 1986; Li et al. 2002) as well as include other aspects important for maintaining a long-term relationship and retaining its stability (e.g. personality variables; Chamorro-Premuzic 2007).

Our main research hypotheses are as follows: 1) perception of overall mate value (own and partner's MV) may be related to sociosexual orientation in both sexes involved in romantic relationships; 2) perception of discrepancy in overall mate value between partners (mate value asymmetry) may be related to sociosexuality in both sexes staying in romantic relationships.

Materials and Methods

Participants

Participants, all native Polish speakers, were informed about an on-line romantic relationship questionnaire via internet discussion forums and social networking websites. Previous analyses revealed that responses from participants of online tests had been found to be as reliable as those of laboratory-based tests (Gosling et al. 2004). All participants were anonymous volunteers. They were informed about the scientific purpose of the research and confidentiality of data. Participants could withdraw from the experiment at any time during the course of study.

A total number of N=817 participants of both sexes and different sexual orientations completed the questionnaires. For further analyses we included only adults (≥ 18 years of age), currently involved in heterosexual romantic relationships, who declared themselves as exclusively or predominantly heterosexual (1st to 3rd grade on the Kinsey Scale; Kinsey et al. 1949) and answered all questions. This selection criteria limited the sample size to N=157 women of reproductive age (18–41 years of age; M=25.90 years, SD=4.24) and N=92 men (18–45 years of age; M=26.80 years, SD=4.32). Since web-design of the study allowed to complete the questionnaires without excluding those who did not meet the criteria of the experiment, high rejection rate of participants was expected.

Materials and procedures

Participants provided the following demographic information: sex, age, sexu-

al orientation (based on 7-grade Kinsey Scale, Kinsey et al. 1949), marital status ("single", "in relationship"), the length of the present relationship and number of children. The mean length of relationships was 58.19 months for females (SD=50.09; Median=45.00) with a range from 0.50 to 244.00 months. For males the mean length of a relationship was 55.22 months (SD=63.02; Median=39.00) with a range from 1.50 to 242.00 months. In this sample 18% of males and 29% of females had children, however this variable did not have any effect on the analyses.

Sociosexuality was measured using Revised Sociosexual Orientation Inventory (SOI-R; Penke and Asendorpf 2008). This 9-item Inventory consists of three facets describing individual behavior (sexual history), attitude and desire for uncommitted sex. The items are scored on 9-point scale. Aggregating scores from all 9 items results in an assessment of global sociosexual orientation. Generally, higher scores in all three domains as well as in global sociosexuality, indicate more unrestricted sociosexual orientation, requiring neither high emotional investment nor prolonged courtship before engaging in sexual relations (Simpson and Gangestad 1992). Cronbach's α for all items of SOI-R was 0.83 both for men and women.

The assessment of mate value (MV) was obtained using a measure by Graham-Kevan and Archer (2009), which consists of 6 different aspects of MV. This multidimensional assessment of MV seems to be reasonable referring to a variety of partner's traits preferred in relationships. Although commonly physical attractiveness is considered as an indicator of female mate value while resources are determinants of male mate

value, still the most desirable characteristics preferred by both males and females consist of the same features (Buss and Barnes 1986). Moreover, researchers have found the convergence between the sexes concerning the mate value preferences (Buss et al. 2001). According to Graham-Kevan and Archer (2009), participants were asked to rate both themselves and their partners on the six major indicators of mate value: physical attractiveness, personality, education, intelligence, career or job prospects and social status, relatively to other people they know. The response scale was extended from a 5-point scale (1=very low, 5=very high) to a 7-point scale (1=very low, 7=very high) to increase the variation of results and to avoid the ceiling effect (see: Nowak and Danel 2014). The mean scores were calculated for both participant's and partner's mate values. This resulted in the self-assessment and partner's assessment of overall MV (perceived partner's MV). Please note that since we did not test both partners of each couple, a term "both partners' MVs" always refers in this article to the participant's self-assessment of MV and his/her perception of his/her partner MV. Cronbach's α for all items of modified mate value assessments for the females were: 0.75 and 0.74 (self-MV and partner's MV, respectively), whereas for the males: 0.70 and 0.72 (self-MV and partner's MV, respectively). The mate value difference (MVD) was calculated by deducting the mean score of a participant's mate value self-assessment from the mean score of a partner's mate value assessment (see also: Nowak and Danel 2014). Negative values indicated that a participant assessed his/her partner lower in MV than him-/herself, whereas positive values showed that a participant

assessed his/her partner higher in MV than him-/herself.

The analyses were conducted using STATISTICA 10.0 (StatSoft 2010). Wherever particular assumptions of parametric statistical procedures were not met, non-parametric statistics were applied.

Results

The Mann Whitney U test indicated that the attitude, desire and global sociosexuality scores were significantly higher in men than in women (attitude: U=3623.00, desire: U=4043.50, global: U=3464.00; all $p<0.0001$), whereas sociosexual behavior was marginally significantly higher in men (U=6189.00, $p=0.06$). These results are consistent with previous studies showing that men tend to be more sociosexually unrestricted than women (e.g. Buss and Schmitt 1993; Schmitt and Buss 1996). Neither the age of participants (Mann-Whitney U test: U=6933.50, $p=0.60$) nor the relationship length (U=6352.00, $p=0.24$) were significantly different between men and women. The Spearman rank correlation coefficient (r_s) indicated that the age of participants significantly correlated with sociosexual behavior ($r_s=0.33$, $p=0.001$ for men; $r_s=0.21$, $p=0.006$ for women), attitude ($r_s=0.19$, $p=0.01$ only for women) and global sociosexuality ($r_s=0.28$, $p=0.005$ for men; $r_s=0.20$, $p=0.01$ for women). Therefore age was included in main analyses regarding relevant SOI-R facets. The relationship length did not correlate with any of the sociosexual facets ($r_s<0.18$, $p>0.05$ all facets of sociosexuality in both sexes). There were significant correlations between both partners' MVs assessed by both sexes (for females: $r_s=0.52$, $p<0.0001$; for males: $r_s=0.65$, $p<0.0001$), which are consistent with assortative mating theory (Thiessen and Gregg 1980).

According to Nieuwenhuis et al. (2011), a comparison of two experimental effects cannot be analyzed by two separate tests, as this leads to statistical errors. Hence, we have used general linear model, which allowed us to compare both sexes within one analysis.

Mate Value and Sociosexuality

In order to test whether the perceived MV of a participant and his/her partner is related to different facets of a participant's sociosexuality, multiple regression analyses were used with sociosexuality facets as dependent variables and MVs as independent variables.

Because effects of the interactions between categorical (sex of respondents) and continuous variables (MV of both partners) on dependent variables (two facets of sociosexuality: global and desire) were significant ($F_{7,241}=12.302$ for global sociosexuality and $F_{5,246}=13.564$ for sociosexual desire; both $p<0.0001$), the general linear model for different slopes was used for all further analyses (Stanisz 2006). This approach allowed to include both sexes into one model and analyze effects of interactions between sex and independent variables on SOI-R facets.

The model for global sociosexuality (Table 1) as a dependent variable and both partners' MVs as well as the age of participants as predictors was also statistically significant ($F_{7,241}=12.302$, $p<0.0001$) and explained 24.2% of global sociosexuality variance. Detailed analysis showed that this result was driven by four effects. Precisely, an increase in male-self-assessment of MV resulted

Table 1. A summary of the general linear model (different slopes) results: the effects of interactions between sex & age and sex & MV on different SOI-R facets on different SOI-R facets

	Global			Behavior			Attitude			Desire		
	$R^2=0.24$			$R^2=0.08$			$R^2=0.20$			$R^2=0.20$		
	$F_{7,241}=12.30$			$F_{7,245}=4.28$			$F_{7,242}=9.82$			$F_{5,246}=13.56$		
	$p<0.0001$			$p=0.0002$			$p<0.0001$			$p<0.0001$		
	β	t	p	β	t	p	β	t	p	β	t	p
♀*age	0.56	2.58	0.01	0.48	2.03	0.04	0.58	2.59	0.01	–	–	–
♂*age	0.51	2.58	0.01	0.62	2.88	0.004	0.36	1.76	0.08	–	–	–
♀*p MV[1]	–0.17	–0.49	0.63	–0.03	–0.09	0.92	–0.06	–0.18	0.85	–0.32	–0.95	0.34
♂*p MV[1]	–1.12	–2.20	0.03	0.23	0.41	0.67	–0.68	–1.29	0.18	–2.20	–4.26	<0.0001
♀*s MV[2]	0.24	0.78	0.43	0.02	0.05	0.96	0.37	1.20	0.23	0.11	0.37	0.71
♂*s MV[2]	1.50	3.01	0.003	1.08	2.01	0.05	0.82	1.62	0.11	2.07	4.09	<0.0001

Note: [1] participant's perception of his/her partner MV:
♀*p MV – female's perception of her partner MV; ♂*p MV – male's perception of his partner MV
[2] participant's self-assessment of MV:
♀*s MV – female's self-assessment of MV; ♂*s MV – male's self-assessment of MV

in increased male global sociosexuality (β=1.50, $p=0.003$), whereas an increase in male assessment of partner's MV resulted in decreased male global sociosexuality (β=–1.12, $p=0.03$). Similar effects were not significant for women. The effect of age for both sexes predicted global sociosexuality (β=0.56 for females and β=0.51 for males; both $p=0.01$).

The model for sociosexual behavior (Table 1) as a dependent variable and both partners' MVs, as well as the age of the participants as predictors was statistically significant ($F_{7,245}=4.278$, $p=0.0002$) and explained 8.4% of sociosexual behavior variance. Detailed analysis showed that this result was driven by the effects of both partner's age: an increase in female age (β=0.48, $p=0.04$) as well as male age (β=0.62, $p=0.004$) resulted in increased sociosexual behavior. The effect of male-self-assessment of MV was marginally significant (β=1.08, $p=0.05$). A similar effect was not significant for women. The effect of partners'

MVs was not significant in either of the sexes.

The model for sociosexual attitude (Table 1) as a dependent variable and both partners' MVs as well as the age of the participants as predictors were statistically significant ($F_{7,242}=9.818$, $p<0.0001$) and explained 19.9% of sociosexual attitude variance. Detailed analysis showed that this result was driven only by the effects of female age: an increase in female age resulted in increased female sociosexual attitude (β=0.58, $p=0.01$). A similar effect was not significant for males. The effects of partners' MVs as well as self-assessed MVs were also not significant for either of the sexes.

The model for sociosexual desire (Table 1) as a dependent variable and both partners' MVs as predictors was statistically significant ($F_{5,246}=13.564$, $p<0.0001$) and explained 20.0% of sociosexual desire variance. Detailed analysis showed that this result was driven by two effects. Specifically, increase in male-self-assessment of MV resulted

in increased male sociosexual desire ($\beta=2.07$, $p<0.0001$), whereas increase in male assessment of the partner's MV resulted in decreased male sociosexual desire ($\beta=-2.20$, $p<0.0001$). Similar effects were not significant for women.

Mate Value Difference and Sociosexuality

In order to test whether the self-perceived discrepancy between both partners' MV predicted different facets of participant's sociosexuality, multiple regression analyses with sociosexuality facets as dependent variable and MVD as independent variable were used. Again, because the effects of the interactions between categorical (sex) and continuous variables (MVD) on dependent variables (two facets of sociosexuality: global and desire) were significant ($F_{5,243}=17.036$ for global sociosexuality and $F_{3,248}=22.590$ for sociosexual desire; both $p<0.0001$), the general linear model for different slopes was used.

The model for global sociosexuality (Table 2) as a dependent variable and perceived discrepancy between both partners' MVs, as well as the age of participants as predictors was also statistically significant ($F_{5,243}=17.036$, $p<0.0001$)

and explained 24.4% of global sociosexuality variance. Detailed analysis showed that in men with the increase of the discrepancy in MV in favor of their partners, male global sociosexuality decreased ($\beta=-0.17$, $p=0.005$). A similar effect was not significant for women. The effect of age for both sexes predicted global sociosexuality ($\beta=0.56$ for females and $\beta=0.50$ for males; both $p=0.01$).

The model for sociosexual behavior (Table 2) as a dependent variable and perceived discrepancy between both partners' MVs as well as age of participants as predictors was also statistically significant ($F_{5,247}=3.968$, $p=0.002$) and explained 5.6% of sociosexual behavior variance. Detailed analysis showed that this effect was driven only by the age of male participants ($\beta=0.60$, $p=0.007$). The effect of female participants' age was marginally significant ($\beta=0.48$, $p=0.05$). The effect of MVD was not statistically significant for both sexes.

The model for sociosexual attitude (Table 2) as a dependent variable and perceived discrepancy between both partners' MVs, as well as the age of participants as predictors, was also statistically significant ($F_{5,247}=13.522$, $p<0.0001$) and explained 20.1% of sociosexual attitude variance. Detailed analysis showed

Table 2. A summary of the general linear model (different slopes) results: the effects of interactions between sex & age and sex & MVD on different SOI-R facets on different SOI-R facets

	Global			Behavior			Attitude			Desire		
	$R^2=0.24$			$R^2=0.06$			$R^2=0.20$			$R^2=0.20$		
	$F_{5,243}=17.04$			$F_{5,247}=3.97$			$F_{5,244}=13.52$			$F_{3,248}=22.59$		
	$p<0.0001$			$p=0.002$			$p<0.0001$			$p<0.0001$		
	β	t	p	β	t	p	β	t	p	β	t	p
♀*age	0.56	2.60	0.01	0.48	2.00	0.05	0.59	2.65	0.009	–	–	–
♂*age	0.50	2.55	0.01	0.60	2.72	0.007	0.35	1.75	0.08	–	–	–
♀*MVD	–0.04	–0.73	0.47	–0.004	–0.07	0.94	–0.05	–0.83	0.41	–0.04	–0.71	0.48
♂*MVD	–0.17	–2.83	0.005	–0.06	–0.86	0.39	–0.10	–1.59	0.11	–0.27	–4.57	<0.0001

that this effect was driven only by the age of female participants ($\beta=0.59$, $p=0.009$). The effect of age was not statistically significant in men. The effect of MVD was not statistically significant for both sexes.

The model for sociosexual desire (Table 2) as a dependent variable and MVD as predictor was statistically significant ($F_{3,248}=22.590$, $p<0.0001$) and explained 20.5% of sociosexual desire variance. Detailed analysis showed that in men with the increase of the discrepancy in MV in favor of their partners, male sociosexual desire decreased ($\beta=-0.27$, $p<0.0001$). A similar effect was not significant for women.

Discussion

Results of our research showed that participant's self-assessment of MV and his perception of his partner's MV as well as perceived mate value difference between them might be related to sociosexual variation in heterosexual males, but not in females. We have shown that in men with the decrease of self-perceived MV, an increase in perceived partner's MV and an increase of the discrepancy in mate value (MVD) in favor of their partners, the global sociosexuality and sociosexual desire decreased. Possible explanations for this associations may be bidirectional.

On the one hand both individuals' as well as their partners' MVs may affect the level of participants sociosexuality. For instance, referring to our outcomes it is possible that lower MV males may decrease their sociosexuality in order to retain higher MV female. Consequently, our results could be considered within the context of mate retention tactics. From the male perspective, a man, by displaying traits reflecting fidelity and com-

mitment, may overcome his low mate quality and improve his fitness by long-term instead of short-term strategy (Penke and Denissen 2008). Moreover, Kardum et al. (2006) revealed that men and women having partners with higher SOI score display mate retention tactics more intensively. According to Kardum et al. (2006), men tend to show more intrasexual manipulations (i.e. the same sex-orientated), whereas women are more prone to use intersexual manipulations (i.e. the opposite sex-orientated) in this context. Contrary to those predictions, considering our results, where males having partners with higher MV showed lower global sociosexuality and lower sociosexual desire, we could assume that lower SOI-R scores of these two facets of sociosexuality, might be one of the intersexual tactics of male mate retention behaviors. Since sociosexuality may vary during life span (Penke and Asendorpf 2008; Simpson and Gangestad 1991; our results), we propose that a male, while being in a relationship with a relatively higher MV female, by a decrease in his sociosexuality, reduces the risk of losing his partner. This could be achieved by giving her a sense of commitment, stability and fidelity as well as possibly better prospects of relationship and parental investments. Nevertheless, we did not test mate retention tactics directly, so it could be an important topic for further studies of sociosexuality, mate value and mate retention scales. These results can be also applied to men with lower MV partners. In this case, male, staying in a relationship with a relatively lower MV female, may be more prone to or/and more likely to engage in extra pair relationships. Consequently, their tendency toward infidelity may be reflected in their higher sociosexuality.

On the other hand, the lower male sociosexuality may be a primary factor that convinces female to mate with lower MV male. In this 'female-oriented' perspective our results refer to the Boothroyd et al. (2008) studies, which revealed that women seeking a partner, are attracted to males who are more likely to engage in long-term relationships (i.e. those with lower SOI-R score). Moreover, moral virtues like male fidelity, as an outcome of lower sociosexuality level, could be also sexually attractive for women, as they evolved to display male markers of parental abilities of the potential father (Miller 2007). Due to the elevated costs of women's reproduction, the need of high biparental care and parental investment, restricted men's sociosexuality (i.e. low SOI-R scores) may be valued in females mate choice. Therefore, men with lower SOI-R scores could be preferred by women despite their decreased mate value. Our results also show that men with higher mate value partners have restricted sociosexuality, which may decrease the possibility of their infidelity. Therefore, consequently, we suggest, that females may decide to bear the costs of choosing/having a lower quality male and, in return, gain a loyal, long-term partner and consequently a higher probability of paternal investment.

The lack of significant results in women's data may be a consequence of general sexual differences in mating strategies and priorities (e.g.: Buss 1989; Buss and Barnes 1986; Buss and Schmitt 1993; Clark and Hatfield 1989; Gangestad and Simpson 2000; Trivers 1972) as well as lower, in general, women's sociosexuality (our results; Clark 2006; Penke and Asendorpf 2008; Schmitt 2005; Simpson and Gangestad 1991; 1992). However, researchers do not provide strong support for this view. For instance, Reise and Wright (1996) revealed that high SOI females perceive themselves higher in some aspects of MV, such as "attractive and good looking". On the other hand, a high sociosexual orientation inventory score is attainable for every woman (regardless of their MV) even given minimal mating effort, since men tend to accept an offer of sexual intercourse from an opposite-gender stranger much more frequently than women do (Clark and Hatfield 1989). Moreover, Penke and Denissen (2008) did not find any adaptive explanation of self-perceived MV in the context of mating strategies in women. This suggests that other variables than MV may be important agents related to sexual strategies in women. For instance, Gangestad and Simpson (2000) propose that environmental factors (such as pathogen prevalence) may have a stronger effect on female reproductive strategies than mate value. Additionally, Buss and Schmitt (1993) report that women's preferences regarding partners' mate value are similar concerning both short-term and long-term tactics. In accordance with these reports, we did not find any significant relation between female sociosexuality and overall mate value. Additionally, the lack of significant results for women may also result from the design of the study, which focused only on romantic relationships. Due to this criterion, individuals who pursue extremely short-term mating strategies and do not form stable relationships, were not included into this research.

Other possible limitations of our study may refer to the fact that self and partner's MV assessments were done only by the participants and therefore might have been relatively subjective. Neither the perception of both partners

nor third-party assessment were considered in our study. Moreover, some personality traits (e.g. self-esteem, narcissism) may affect both self-perception of mate value and sociosexuality (Brase and Guy 2004; Goodwin et al. 2012; Jonason et al. 2012; Penke and Denissen 2008), but they were not controlled in our study and should be included in further studies concerning this topic.

To sum up, our results show that male global sociosexuality and sociosexual desire are positively related to their MV self-assessment, but negatively related both to the perception of their partners' MV and to the discrepancy between partners' mate value. We suggest two potential explanations of this phenomenon: 1) low MV males, by decreasing their sociosexuality, may reduce risk of losing higher MV partner (e.g. caused by infidelity), which might be a kind of mate retention tactic, 2) high MV females deciding to mate with lower quality males, may gain a more restricted partner and, hence, have higher probability of paternal investment. Possible benefits for both sexes resulting from reduced men's sociosexuality may overcome the drawbacks derived from being a lower mate value male partner and facilitate to form and maintain MV asymmetrical relationships and/or retain a female partner. These "trade-offs" between mate quality and future parental investment of both sexes may affect future reproductive success as well as both male and female evolutionary fitness.

Authors' contributions

All authors equally contributed to this paper.

Conflict of interest

The Authors declare that there is no Conflict of interest.

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