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Caught in a “Bad Romance”? Reconsidering the Negative Association Between
Sociosexuality and Relationship Functioning

Abstract

Sociosexuality refers to individual differences in interest in and willingness to engage in sexual activity without an emotional connection. Unrestricted sociosexuality is associated with a greater likelihood of infidelity, and with poorer relationship quality. However, previous research has failed to examine relationship-specific characteristics that may moderate these findings. Two studies of romantically-involved adults examined whether relationship commitment and different relationship agreement types moderate the associations between unrestricted sociosexuality and infidelity. Study 1 ($N = 300$) showed that individuals in consensual monogamous (CM) relationships with extradyadic sex (EDS) experiences were more sociosexually unrestricted than individuals without such experiences. The positive association between unrestricted sociosexuality and EDS emerged only for less, but not more, committed individuals. Study 2 ($N = 270$) replicated these results. Furthermore, results showed that individuals in consensual non-monogamous relationships (CNM) relationships were the most sociosexually unrestricted, but no differences emerged in relationship commitment or satisfaction, when compared to individuals in CM relationships without prior EDS. Individuals in CM relationship with prior EDS were the least committed and satisfied. The negative association between unrestricted sociosexuality and both relationship quality indicators emerged for all individuals in CM relationships, but it was non-significant for individuals in CNM relationships. Implications are discussed.

Caught in a “Bad Romance”? Reconsidering the Negative Association Between
Sociosexuality and Relationship Functioning

Sociosexuality refers to individual differences in interest in and willingness to engage in sexual activity without an emotional connection or an established relationship (Simpson & Gangestad, 1991). As a result, sociosexually unrestricted individuals are more interested in casual sex than restricted individuals. However, both unrestricted and restricted individuals do find themselves in romantic relationships where there are frequently norms in favor of monogamy and against extradyadic sex (EDS). Although EDS is not uncommon, with a recent study showing that 27% of their heterosexual adult (non-student) sample reporting they had “*cheated*” (i.e., engaged in sexual interactions with someone other than a primary partner that could jeopardize, or hurt, the relationship) (Mark, Janssen, & Milhausen, 2011), a majority of men and women report that “*faithful marriage to one partner*” is the ideal mating arrangement (Stone, Goetz, & Shackelford, 2005). In addition, despite a liberalization of attitudes towards various aspects of relationships and sexuality over time (e.g., premarital sexual activity, childbearing outside of marriage), there has been no such change in the majority held belief that extramarital sex is “*always wrong*” or “*almost always wrong*” (Thornton & Young-DeMarco, 2001).

One’s unrestricted sociosexuality may be problematic and threatening to one’s romantic relationship. Research has found that unrestricted individuals do experience less relationship satisfaction and less commitment (Webster et al., 2015), and report a greater willingness to engage in infidelity (Mattingly et al., 2011). From an Investment Model perspective (Rusbult, Martz, & Agnew, 1998), greater commitment, or the motivation to remain in a stable long-term relationship (Arriaga & Agnew, 2001), helps individuals activate pro-relationship mechanisms to prevent infidelity (Drigotas, Safstrom, & Gentilia, 1999). Indeed, previous research has shown that more committed individuals are less likely to engage in infidelity

behaviors (Rodrigues & Lopes, 2016; Rodrigues, Lopes, & Pereira, 2016a). However, research has failed to account for relationship agreements of (non-)monogamy. Therefore, a question remains as to whether lesser commitment and greater frequency of infidelity of unrestricted individuals results from an inherent inability or disinterest in committing to long-term partners, or is it a result of sexual monogamy being a relationship agreement that is less suited to their particular sociosexuality. In two studies we examined the associations between sociosexuality, relationship agreement types, relationship quality and sexual infidelity. In Study 1 we focused on relationship commitment and tested its potential role as a moderator in the positive association between unrestricted sociosexuality and sexual infidelity among individuals in consensual monogamous (CM) relationships. In Study 2 we examined, for the first time, whether the negative association between unrestricted sociosexuality and two relationship quality indicators (i.e., commitment and satisfaction) would be attenuated or even disappear among individuals in consensual non-monogamous (CNM) relationships.

Sociosexuality in Romantic Relationships

Differences in sociosexuality may translate into differences in relationship experiences, such that restricted individuals tend to develop longer relationships with greater quality, particularly greater commitment, investment, and dependency (Jones, 1998; Simpson & Gangestad, 1991). More often than not, romantically involved individuals have an implicit (and often explicit) relationship agreement of sexual monogamy in their relationship, whereby any form of EDS is not allowed and perceived as infidelity by the partner (Barta & Kiene, 2005; Cohen, 2015; Treas & Giesen, 2000; Ziegler, Conley, Moors, Matsick, & Rubin, 2015). Despite this prohibition, individuals sometimes violate this agreement and engage in EDS. Such behaviors can have severe consequences for the relationship (Allen & Baucom, 2006; Whisman, Gordon, & Chatav, 2007), including relationship dissolution (Hall & Fincham, 2006), and this findings is replicated cross-culturally (Fincham & May, 2017).

Sociosexuality is an important factor to predict EDS. Given their lack of preconditions required for sexual intimacy, it may not be surprising that unrestricted individuals report a greater willingness to engage in EDS (Barta & Kiene, 2005; Ostovich & Sabini, 2004; Seal, Agostinelli, & Hannett, 1994), possibly because these individuals perceive more opportunity for sexual encounters. For example, when examining smiling faces, people scoring high in sociosexuality were more likely to perceive the faces as flirtatious as opposed to friendly (Howell, Etchells, & Penton-Voak, 2012). However, it may also result from relationship characteristics. For instance, research has shown that individuals with more unrestricted sociosexual attitudes feel less satisfied with their relationship (Webster et al., 2015), and that less committed and less satisfied individuals are more likely to engage in EDS (Allen et al., 2005).

Unrestricted individuals, however, are not always more likely to engage in EDS. Indeed, they are motivated to develop long-term romantic relationships (Jackson & Kirkpatrick, 2007), and are sexually invested in their relationships (Tempelhof & Allen, 2008). One possible reason why unrestricted individuals may decide not to engage in EDS is the quality of their primary relationship. Relationship quality has been shown to predict a lower likelihood of EDS (Martins et al., 2016; Rodrigues et al., 2016a; Rubel & Bogaert, 2015; Shaw, Rhoades, Allen, Stanley, & Markman, 2013). Faced with the opportunity to engage in EDS, individuals consider both the short-term benefits and the long-term consequences of engaging in such behavior. In relationships with lower quality, individuals may believe that the possible benefits of engaging in EDS surpass its costs. In support of this, there is evidence that relationship dissatisfaction is associated with greater likelihood of infidelity (Treas & Giesen, 2000). In relationships with greater quality, individuals may redirect their focus to their relationship. Research suggests that greater commitment facilitates a focus on broader relational goals, and increases consideration of the well-being

of the partner and relationship, thereby preventing infidelity (Drigotas et al., 1999).

Consistent with this, it is possible that different relationship quality indicators, such as commitment and satisfaction, interact with sociosexuality to prevent EDS. In support of this idea, unrestricted individuals are still less likely to engage in infidelity when more committed to their relationship (Mattingly et al., 2011; Rodrigues & Lopes, 2016). However, all of the research discussed so far has been predicated on an assumption of sexual monogamy, where EDS is perceived as a violation.

Relationship Agreement Types and Relationship Quality

Recent research has focused on the agreements individuals establish within their romantic relationships and their impact on relationship quality. We focus specifically on CM and CNM relationships. (An overview of the theoretical perspectives underlying non-monogamy is beyond the scope of this paper but for a review, see Conley, Ziegler, Moors, Matsick, & Valentine (2013).) In CM relationships both partners have a consensual agreement regarding sexual exclusivity, whereas in CNM relationships both partners consent to allow sexual encounters with other people (Cohen, 2015; Matsick, Conley, Ziegler, Moors, & Rubin, 2014; Rubel & Bogaert, 2015). Although not as commonly endorsed as sexual monogamy, Stone and colleagues (2005) found that 13.4% of men and 9.5% of women reported that “*marriage to one partner, with freedom to have casual sex partners*” (i.e., what we defined as a CNM relationship) was their ideal mating arrangement. Such CNM agreements were more likely to be reported by unrestricted individuals, than compared to CM agreements (Mogilski, Memering, Welling, & Shackelford, 2015).

CNM relationships are perceived by others as having less quality (e.g., less committed, less intimate, less stable, less sexually satisfactory) than CM relationships (Conley, Moors, Matsick, & Ziegler, 2013). However, this does not translate into the perceptions that CNM individuals have of their own relationships. In fact, individuals in CNM relationships

maintain healthy romantic relationships (Rubel & Bogaert, 2015). In a recent study questioning individuals about the positive aspects of being in a CNM relationship, 44.3% mentioned the possibility of experiencing new things and freedom, 18% indicated the ability to feel free and not be tied down, and 11.5% indicated their ability to sexually satisfy themselves in different ways (Cohen, 2015). Further, Mogilski and colleagues (2015) found no differences in relationship satisfaction according to relationship agreement type.

One possible explanation is the fact that individuals in CNM relationships hold more positive attitudes towards EDS, and therefore it does not have negative relationship implications, at least for this member of the dyad. Consistent with this idea, Cohen (2015) found that individuals in CNM relationships do not perceive explicit EDS behaviors (e.g., oral sex, sexual intercourse) as indicative of infidelity. By contrast, ambiguous behaviors, such as lying to or withholding information from the partner, are viewed as infidelity, presumably because these behaviors violate the principle of honesty and openness that characterizes these relationships. As such, engaging in sexual behaviors with extradyadic partners is not necessarily detrimental to the adjustment and functioning of individuals in CNM couples (Conley, Ziegler, et al., 2013; Mogilski et al., 2015; Rubel & Bogaert, 2015). For individuals in CM relationships, however, engaging in EDS behaviors is considered to be infidelity because it represents a transgression or violation of the trust expected in monogamy (Fletcher, Simpson, & Thomas, 2000). Notably, a recent study showed that individuals in CM relationships with EDS experiences in their current relationship have more positive attitudes towards these activities, compared to individuals in CM relationship without such experiences (Rodrigues et al., 2016a).

Overview of the Current Studies

Research has generally suggested that unrestricted individuals have a more difficult time in their romantic relationships. We argue that unrestricted individuals are not necessarily

more likely to engage in EDS or to be in relationships of lower quality. In Study 1 we focused on a sample of adults in typical CM relationships, and examined whether commitment moderated the typical association between unrestricted sociosexuality and EDS. In Study 2 we focused on a sample of adults in CM and CNM relationships, and examined whether relationship agreement type moderates the association between unrestricted sociosexuality and poorer relationship quality (i.e., commitment and satisfaction).

Study 1

Although unrestricted sociosexuality is associated with greater frequency of EDS (Ostovich & Sabini, 2004), research shows that individuals restrict their sociosexuality when in a romantic relationship (Penke & Asendorpf, 2008). Research also shows that relationship commitment prevents the occurrence of EDS, by promoting a greater focus on the relationship (Drigotas et al., 1999) and acting as a buffer of EDS experiences. Therefore, we hypothesized that commitment moderates the association between unrestricted sociosexuality and EDS. Specifically, unrestricted individuals should be more likely to report EDS in the current relationship, but only when less committed to their relationship. This association should disappear for more committed individuals. These effects should occur regardless of gender (Simpson, Wilson, & Winterheld, 2004).

Method

Participants

Participants were 300 Portuguese heterosexual adults (164 women) with ages ranging from 18 to 51 years ($M = 21.64$, $SD = 4.96$) who voluntarily took part in this study. Most individuals had completed their high school education (47.3%) or minor or major university degrees (46.8%). Participants resided primarily in metropolitan areas (47.0%) or in suburban areas (42.0%).

All participants were in a CM relationship. Most of these participants (79.0%) indicated no EDS experiences in their current relationship and the remaining (21.0%) indicated prior EDS in their current relationship without the partner knowing about it. This rate of EDS is similar to estimates provided by other researchers (e.g., Allen et al., 2005). Relationship length ranged from 6 to 70 months and there were no differences according to EDS experiences (no EDS: $M = 26.27$, $SD = 22.08$; with EDS: $M = 23.62$, $SD = 18.87$), $t(298) = 0.85$, $p = .39$.

Measures

Sociosexuality. We used the Revised Sociosexual Orientation Inventory (SOI-R) proposed by Penke and Asendorpf (2008; Portuguese validation by Rodrigues & Lopes, 2016). This measure comprises nine items assessing past behavior (three items; e.g., “With how many different partners have you had sex within the past 12 months?”), personal attitudes (three items; e.g., “Sex without love is OK”), and desire (three items; e.g., “How often do you have fantasies about having sex with someone with whom you do not have a committed romantic relationship?”). Responses were given on 7-point scales (anchors depending on the items). Items scores were averaged to result in a single mean sociosexuality score. Higher mean scores indicate a more unrestricted sociosexuality, that is, a greater predisposition to engage in sexual encounters. The measure presented good reliability in this sample ($\alpha = .80$).

Commitment. We used the measure retrieved from the Investment Model Scale originally proposed by Rusbult and colleagues (1998; Portuguese validation by Rodrigues & Lopes, 2013). This measure comprises seven items (e.g., “I want our relationship to last for a very long time”). Responses were given on 7-point scales (1 = *Do not agree at all*, 7 = *Agree completely*). Higher means scores indicate greater relationship commitment. The measure presented good reliability in this sample ($\alpha = .91$).

EDS. Based on previous research (Rodrigues & Lopes, 2016; Rodrigues et al., 2016a; Shaw et al., 2013), we used three questions to assess EDS experiences. Two questions were used to assess EDS: “Have you had sexual encounters outside your current relationship?” (*Yes/No*) and if “*yes*”, “Does your partner know of these sexual encounters?” (*Yes/No*). If participants responded “*yes*” to the first question and “*no*” to the second question, they were classified as engaging in EDS. In this study, all participants answered “*no*” to the second question.

One question was used to assess CM or non CNM relationships: “Have sexual encounters outside your current relationship been previously discussed and agreed upon with your partner?” (*Yes/No*). If participants responded “*no*” to this question, they were classified as having a CM relationship. In this study, all participants answered “*no*” to this question.

Procedure

The study was carried out with Qualtrics software in accordance with the Ethics Guidelines issued by the Scientific Commission of ISCTE-IUL. An invitation for romantically involved heterosexuals to participate in an online questionnaire was sent through mailing lists (e.g., students, professional contacts) and published on social network websites (e.g., Facebook). By clicking on the provided hyperlink, individuals were directed to a secure webpage in which they were informed that they would be taking part in a voluntary and anonymous self-report survey about personal relationships. They were also informed that they could abandon the study at any point by simply closing the browser without their questionnaire being considered for analysis. After consenting to participate in the study (by checking the “*I agree*” option), participants were asked to provide information regarding their age, gender, educational level, relationship status and sexual orientation.

Participants were then presented with the sociosexuality and commitment scales (counterbalanced). Lastly, EDS was assessed. Upon completing the task, participants were

thanked and debriefed. This was a non-forced response web survey. When applicable, a warning reminded individuals of missing responses but they were allowed to continue their participation.

Results and Discussion

Preliminary Analyses

Overall, men reported more unrestricted sociosexuality ($M = 2.81$, $SD = 1.02$) than women ($M = 2.17$, $SD = 0.91$), $t(298) = 5.77$, $p < .001$, $d = 0.67$. Women reported greater commitment ($M = 6.23$, $SD = 1.02$) than men ($M = 5.88$, $SD = 1.28$), $t(298) = 2.65$, $p = .008$, $d = 0.31$.

The association between commitment and sociosexuality was tested with a bootstrapped multiple regression model with 5,000 samples using PROCESS macro for SPSS (Hayes, 2013). Sociosexuality was the predictor variable. Gender (dummy coded: 0 = women and 1 = men) was the moderator variable. Commitment was the outcome variable. All variables were centered prior to the analysis. Results showed a negative association between unrestricted sociosexuality and commitment, $b = -0.46$, $SE = .06$, $t(296) = -7.17$, $p < .001$, 95% CI [-0.59, -0.33]. Gender did not moderate this association, $b = -0.03$, $SE = .13$, $t(296) = -0.27$, $p = .79$.

Sociosexuality, Commitment and EDS

There were no gender differences in reports of EDS (no EDS: 56.5% women; with EDS: 49.2% women), $\chi^2(1) = 1.08$, $p = .32$. Results show that individuals with EDS experiences were more sociosexually unrestricted ($M = 3.14$, $SD = 1.03$) than individuals without EDS experiences ($M = 2.28$, $SD = 0.93$), $t(298) = 6.34$, $p < .001$, $d = 0.73$. They were also less committed to their relationship ($M = 5.06$, $SD = 1.42$), than their counterparts without EDS experiences ($M = 6.34$, $SD = 0.90$), $t(298) = -8.81$, $p < .001$, $d = 1.02$.

To test our hypothesis, we ran a bootstrapped logistic regression model with 5,000 samples using PROCESS. Sociosexuality, gender (dummy coded: 0 = women and 1 = men) and the respective interaction term were the predictor variables. Commitment was the moderator variable. EDS (dummy coded: 0 = no and 1 = yes) was the outcome variable. All variables were centered prior to the analysis.

Results showed that the likelihood of having EDS experiences was positively associated with unrestricted sociosexuality, $b = 0.51$, $SE = .19$, $z(300) = 2.64$, $p = .008$, 95% CI [0.13, 0.89], and negatively associated with commitment, $b = -0.59$, $SE = .17$, $z(300) = -3.49$, $p < .001$, 95% CI [-0.92, -0.26]. The expected interaction between sociosexuality and commitment was also significant, $b = -0.38$, $SE = .19$, $z(300) = -2.00$, $p = .046$, 95% CI [-0.75, -0.01]. No gender effects or interactions were found, all $p > .14$.

Simple slope analyses revealed that the positive association between unrestricted sociosexuality and EDS was significant for less committed individuals ($-1 SD$), $b = 0.88$, $SE = .23$, $z(300) = 3.78$, $p < .001$, 95% CI [0.42, 1.34], but not for more committed individuals ($+1 SD$), $b = 0.06$, $SE = .25$, $z(300) = -0.25$, $p = .801$ (Figure 1).

-- figure 1 about here --

The results of the current study replicated several previous findings related to sociosexuality, including higher scores for men and the negative relationship with commitment. More importantly, this study provided empirical support of our hypothesis that relationship commitment may serve as a buffer to prevent unrestricted individuals from EDS experiences. In other words, unrestricted sociosexuality does not seem to be associated with EDS when individuals are more committed to their relationship, even though past evidence suggest that sociosexuality is negatively associated with relationship quality. Still, this negative association might depend on the relationship agreement type.

Study 2

In addition to replicating the results from Study 1, the aim of this study was to examine the association between sociosexuality and relationship quality for individuals in both CM and CNM relationships. It is important to note that, unlike polyamorous relationships, individuals in CNM do not agree on multiple romantic relationships (Rubel & Bogaert, 2015). In other words, although both CNM and CM relationships are similar in the commitment to a primary romantic relationship with only one primary romantic partner, they differ in the acceptability of EDS.

Because EDS is viewed as a transgression in CM relationships, it is likely to have negative consequences for relationship quality (Fletcher et al., 2000). Individuals in CNM relationships should not experience these negative consequences because they do not perceive EDS as a transgressive behavior. As such, we hypothesized that relationship agreement type moderates the association between sociosexuality and relationship quality, assessed by commitment and satisfaction. Specifically, we expected unrestricted sociosexuality to be negatively associated with relationship quality, but only for individuals in CM relationships. For individuals in CNM relationships, these associations should disappear. Again, we expect these effects to be independent of gender (Simpson et al., 2004).

Method

Participants

Participants were 270 Portuguese heterosexual individuals (141 women) with ages ranging from 18 to 50 years ($M = 28.66$, $SD = 10.40$) who voluntarily took part in this study. Most individuals completed high school education (42.9%) or minor or major degrees (35.7%). Participants resided primarily in metropolitan areas (57.0%) or in suburban areas (37.8%).

Participants who indicated no prior EDS behavior and for whom sexual encounters with other people were not allowed in the relationship (39.6%) were categorized as CM (women =

78, men = 29). Participants who indicated they had sexual encounters outside their current relationship without it being agreed upon with the partner (30.4%) were categorized as CM_EDS (women = 28, men = 54). Participants who indicated being in a relationship in which sexual encounters were consensually agreed upon (30.0%) were categorized as CNM (women = 35, men = 46). All individuals in this latter group indicated EDS in their current relationship.

Relationship length ranged from 6 to 396 months. There were differences in this variable between the three groups, $F(2,267) = 17.78, p < .001, \eta^2_p = .12$. Pairwise comparisons with Bonferroni correction show that CM relationships were shorter ($M = 36.31, SD = 33.18$) than both CM_EDS ($M = 92.10, SD = 91.17$), $p < .001$ and CNM relationships ($M = 74.86, SD = 69.13$), $p < .001$. No differences emerged between these latter groups, $p = .10$. Because of these differences, this variable was controlled for in all analyses.

Procedure and Measures

With the exception of the measure described below, all materials and procedures were the same as in Study 1. To increase the probability of having individuals from CNM relationships in our sample, we also distributed the link to the online questionnaire in discussion forums about non-monogamy and in thematic groups in social network websites (e.g., Facebook groups).

Commitment and Satisfaction Scales. These measures were the short forms of the scales from the Investment Model Scale (Rodrigues & Lopes, 2013). Commitment was measured with four items (e.g., “I want our relationship to last for a very long time”). Satisfaction was measured with three items (e.g., “I feel satisfied with our relationship”). All responses were given on 7-point scales (1 = *Do not agree at all*, 7 = *Agree completely*). Higher mean scores indicate greater relationship commitment and satisfaction, respectively. Both measures presented good reliability in this sample ($\alpha = .92$ and $\alpha = .93$, respectively).

Results and Discussion

Replication of Study 1

Consistent with Study 1, examination of CM individuals ($n = 189$) revealed that unrestricted sociosexuality predicted EDS, $b = 0.58$, $SE = .18$, $z(189) = 3.18$, $p = .002$, 95% CI [0.22, 0.94]. This association was again moderated by commitment, $b = -0.27$, $SE = .12$, $z(189) = -2.18$, $p = .029$, 95% CI [-0.51, -0.03], such that it was only observed for less committed individuals ($-1 SD$), $b = 1.07$, $SE = .36$, $z(189) = 2.97$, $p = .03$, 95% CI [0.37, 1.78], and not for more committed individuals ($+1 SD$), $b = 0.09$, $SE = .19$, $z(189) = 0.46$, $p = .64$.

Preliminary analyses

To examine differences across types of relationships, we ran a 3 relationship agreement type (CM vs. CM_EDS vs. CNM) x 2 gender (female vs. male) multivariate ANOVA in all dependent variables, controlling for relationship length. Descriptive statistics are presented in Table 1.

There was a main effect of relationship agreement type in sociosexuality, $F(2,263) = 67.91$, $p < .001$, $\eta^2_p = .32$, commitment, $F(2,263) = 11.22$, $p = .011$, $\eta^2_p = .03$, and satisfaction, $F(2,263) = 6.23$, $p = .002$, $\eta^2_p = .04$. Pairwise comparisons with Bonferroni correction showed that individuals in CNM relationships were the most sociosexually unrestricted, $p < .001$ and individuals in CM relationships were the least unrestricted, $p < .001$. However, these two groups did not significantly differ in their relationship commitment or satisfaction, all $p > .22$. By contrast, individuals in CM_EDS relationships were the least committed and the least satisfied, all $p < .04$. Moreover, results showed the typical main effect of gender in sociosexuality, $F(2,263) = 59.68$, $p < .001$, $\eta^2_p = .15$, such that men reported being more unrestricted than women. No other main effects reached significance.

There was also an interaction between relationship agreement type and gender in commitment, $F(2,263) = 3.33, p = .037, \eta^2_p = .03$, and satisfaction, $F(2,263) = 4.53, p = .012, \eta^2_p = .03$. A more detailed analysis showed no gender differences in CM, all $p > .096$, and CM_EDS relationships, all $p > .82$. However, men in CNM relationships reported greater commitment, $p = .05$, and satisfaction, $p = .006$, than women. No other interactions reached significance, $F < 1$.

-- table 1 about here --

Relationship Agreement Type, Sociosexuality and Relationship Quality

To test our hypothesis that sexual agreement type moderates the negative association between sociosexuality and relationship quality, we ran two bootstrapped multiple regressions with 5,000 samples using PROCESS, one for each relationship quality indicator. Sociosexuality, gender (dummy coded: 0 = women and 1 = men) and the respective interaction term were the predictor variables. Relationship agreement type (dummy coded: 0 = CM, 1 = CM_EDS and 2 = CNM) was the moderator variable. Relationship length was the control variable. All variables were centered prior to the analysis.

Relationship commitment. Results showed that commitment was negatively associated with unrestricted sociosexuality, $b = -0.36, SE = .08, t(261) = -4.36, p < .001, 95\% CI [-0.53, -0.20]$, but not with relationship agreement type, $b = 0.26, SE = .15, t(261) = 1.77, p = .08$. However, the interaction, however, was significant, $b = 0.55, SE = .09, t(261) = 6.16, p < .001, 95\% CI [0.37, 0.73]$. No gender effects or interactions emerged, all $p > .21$. Simple slope analyses revealed that unrestricted sociosexuality was significantly and negatively associated with commitment for individuals in CM relationships, $b = -0.78, SE = .10, t(265) = -7.90, p < .001, 95\% CI [-0.97, -0.59]$, and for those in CM_EDS relationships, $b = -0.31, SE = .08, t(265) = -4.13, p < .001, 95\% CI [-0.46, -0.16]$, but not for those in CNM relationships, $b = 0.15, SE = .10, t(265) = 1.50, p = .14$ (Figure 2).

-- figure 2 about here --

Relationship satisfaction. Results showed that satisfaction was negatively associated with unrestricted sociosexuality, $b = -0.23$, $SE = .09$, $t(261) = -2.59$, $p = .01$, 95% CI [-0.42, -0.06], but not with relationship agreement type, $b = -0.05$, $SE = .16$, $t(261) = -0.31$, $p = .76$. Again, the interaction was significant, $b = 0.39$, $SE = .10$, $t(261) = -3.89$, $p < .001$, 95% CI [0.19, 0.58]. There were no gender effects or interactions, all $p > .38$. Simple slope analyses showed that unrestricted sociosexuality was significantly and negatively associated with satisfaction for individuals in CM relationships, $b = -0.56$, $SE = .11$, $t(265) = -5.11$, $p < .001$, 95% CI [-0.78, -0.35], and for those in CM_EDS relationships, $b = -0.20$, $SE = .08$, $t(265) = -2.32$, $p = .021$, 95% CI [-0.36, -0.03], but not for those in CNM relationships, $b = 0.17$, $SE = .11$, $t(265) = 1.50$, $p = .14$ (Figure 3).

-- figure 3 about here --

The results of the current study showed that although individuals in CNM relationships were more sociosexually unrestricted, they were not less committed or satisfied when compared to individuals in CM relationships who have not engaged in EDS. More importantly, the results also showed that the typical negative association between unrestricted sociosexuality and relationship quality depends on the relationship agreement type. Indeed, this negative association emerged only for individuals in CM relationships, whereas for individuals in CNM relationships it disappeared.

General Discussion

In this paper we presented and tested two innovative hypotheses related to sociosexuality and its role in romantic relationships functioning. We proposed that although previous research suggests that unrestricted orientations may be associated with problematic relationship outcomes, this is not necessarily the case in all relationships. In Study 1, we provided evidence that the association between sociosexuality and EDS is moderated by an

individual's commitment to that relationship. In Study 2, we provided evidence that unrestricted individuals in CNM relationships do not experience relationships of poorer quality when compared to other CM relationships. In fact, CM_EDS relationships (CM relationships that included EDS) were the least committed and satisfactory.

Overall, our results with CM individuals replicated the typical gender differences in sociosexuality (Schmitt, 2003, 2005) and experience of commitment (Owen, Rhoades, Stanley, & Markman, 2011). Of greater importance, our findings showed that the positive association between unrestricted sociosexuality and EDS occurred only for less committed individuals. For more committed individuals, the association was non-significant. Consistent with the Investment Model perspective (Rusbult et al., 1998), our findings suggest that greater commitment (and possibly greater relationship quality) may act as a barrier to prevent EDS behaviors among these individuals. Committed and unrestricted individuals may consider broader relational goals to enhance relationship well-being to further the "good" relationship they feel they have (Drigotas et al., 1999). To the extent that CM individuals perceive EDS as jeopardizing the relationship, more committed individuals may decide not to act upon their interest in potential alternative mates in order for their romantic relationship to thrive. Our results suggest that such strategy might be adopted even by sociosexually unrestricted individuals. More broadly, our findings align with the argument that individuals accommodate their behavior to pursue specific relational motivations (Strategic Pluralism Theory; Gangestad & Simpson, 2000).

Study 2 further extends these results and provided support for our second main hypothesis. Although individuals in CNM relationships reported being more sociosexually unrestricted than those in CM relationships, they were just as committed and satisfied in their current relationship. Our results converge with recent data showing that CNM couples have similar relationship quality as CM couples (Conley, Ziegler, et al., 2013; Mogilski et al.,

2015; Rubel & Bogaert, 2015). These findings have theoretical implications for the Investment Model. According to this model, perceiving others has having greater quality than the current partner is associated with decreased relationship commitment (Rusbult et al., 1998). Less commitment, in turn, predicts EDS (Drigotas et al., 1999). Our findings from individuals in CNM relationship suggest that this negative association between quality of alternatives and commitment can be reduced, or even disappear, for this relationship agreement type. Although we did not predict any interactions with gender, it is important to note that men in CNM relationships indicated greater commitment and satisfaction than women in CNM relationships. It is possible that such relationship agreements are more adaptive for men than women, in the sense that men seek greater frequency and variability in sex than women (Buss & Schmitt, 1993; for reviews, see Rubin, Moors, Matsick, Ziegler, & Conley, 2014; Ziegler et al., 2015).

One of the most interesting findings is that relationship agreement moderated the negative association between unrestricted sociosexuality and relationship quality, independent of gender. More specifically, our findings showed that sociosexually unrestricted individuals only indicated less commitment and less satisfaction when in a CM relationship (regardless of EDS). The finding that such negative association emerged only for these individuals may indicate that unrestricted sociosexuality appears to be more problematic for CM relationships, possibly because it is associated with a greater likelihood of EDS. For those in a CNM relationship, although this association was non-significant, it actually reversed to a positive association (for a significant positive association between sociosexuality and relationship quality with an older sample of participants, see Fleckenstein & Cox, 2015; Rodrigues, Lopes, & Pereira, 2016b). Because past research has shown that individuals in CNM relationship do not perceive EDS as indicative of infidelity (Cohen, 2015), and because our findings suggest that EDS does not impair relationship quality among

these individuals, it is possible that EDS is not a violation of trust, honesty and openness that characterizes CNM relationships.

Limitations and Future Research

This study has some limitations that should be mentioned. First, our data is cross-sectional and does not allow for causal inferences. In addition, the cross-sectional nature of this data does not allow us to determine whether the link between CNM and relationship outcomes changes as the relationship itself changes. Other research has suggested that some predictors of relationship quality change in their effect over time (e.g., Hadden, Smith, & Webster, 2014). Second, sociosexuality and relationship quality were measured for only one member of the dyad. The findings of the current study should be replicated with dyadic methods to understand how complementary or different partner perspectives on relationship agreements influence relationship outcomes. For example, previous research by Webster et al. (2015) found distinct partner and actor effects of sociosexuality on relationship outcomes. Future research should also seek to examine if individual difference variables (e.g., attachment styles; Conley, Ziegler et al., 2013) differ according to relationship agreement types, and how these variables relate to our findings.

Third, we had no information about how mutual was the relationship agreement. If one member of the couple pressures the partner to accept such agreement without it being completely mutual, there may be negative consequences for relationship quality (for a discussion, see Cohen, 2015). For instance, men have more positive attitudes and are more willing to engage in CNM relationships (Moors, Conley, Edelstein, & Chopik, 2015), which might help explain our findings that men were more committed and satisfied in their CNM relationships. Also, if one partner is not completely comfortable with the parameters and boundaries of the a CNM relationship, EDS behaviors may still be perceived as infidelity, similar to individuals in CM relationship. Also, we have no information on how long

individuals were in their CNM relationships. We have information on the length of the relationships, but specific relationship agreements may have been adopted later in the relationship. It would be interesting to understand whether individuals who start a new CNM relationship are different from those individuals who have a long-lasting relationship and decide to adopt a non-monogamous agreement.

Fourth, although our CNM participants were equivalent to CN participants in relationship length, other demographic variables should be considered in future studies. For instance, it is possible that more religious individuals in CM relationships have a restricted sociosexuality and are less likely to engage in EDS, while not differing in relationship commitment from less religious individuals. In this case, it would be interesting to understand whether religion moderates the findings presented in our studies. Furthermore, future research should seek to replicate these findings with a more representative sample of participants, and with participants from other cultural backgrounds.

Conclusion

These limitations notwithstanding, our findings converge with the arguments that commitment is one of the most important variables for relationship maintenance (Arriaga & Agnew, 2001; Rusbult et al., 1998), that unrestricted individuals are motivated to maintain long-term committed romantic relationships (Jackson & Kirkpatrick, 2007; Simpson et al., 2004), and that both women and men shift their mating strategies to accommodate specific relational motivations (Gangestad & Simpson, 2000). Importantly, we extended the literature by showing that relationship quality interacts with sociosexuality and acts as a barrier to prevent EDS behaviors. For the first time, we also show that relationship agreement influences the association between sociosexuality and different relationship quality indicators. This is a critical point that contributes to our understanding of the impact that assortative mating on the basis of sociosexuality has for relationship quality and possibly for

relationship maintenance. Contrary to the typical findings in the literature, unrestricted sociosexuality seems to be negative for relationship outcomes only in those relationships that do not suit individuals' needs. Unrestricted individuals have to work harder than restricted individuals in trying to have successful monogamous relationships (i.e., greater commitment with no EDS) because monogamous agreements go against their predisposition for sex. If they manage to have a romantic relationship where they can satisfy their need for sex with other people openly and honestly, relationship quality does not seem affected and has a greater potential to be maintained.

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Table 1

Descriptive Statistics for all Dependent Measures According to Sexual Agreement and Gender (Study 2)

	Consensually monogamous relationships (CM)		Consensually monogamous relationships with EDS (CM_EDS)		Consensually non-monogamous relationships (CNM)	
	Women	Men	Women	Men	Women	Men
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>
Sociosexuality	2.32 (0.93)	3.24 (1.33)	3.59 (0.98)	4.51 (1.01)	4.16 (1.37)	5.23 (0.91)
Commitment	5.98 (1.42)	5.41 (1.97)	4.96 (1.72)	4.90 (1.77)	5.33 (1.50)	5.92 (1.15)
Satisfaction	5.67 (1.43)	5.20 (1.60)	4.40 (1.97)	4.22 (1.64)	4.35 (2.03)	5.33 (1.48)

Figure 1. Simple slope analyses for the association between sociosexuality and likelihood of EDS in the current relationship according to commitment (Study 1).

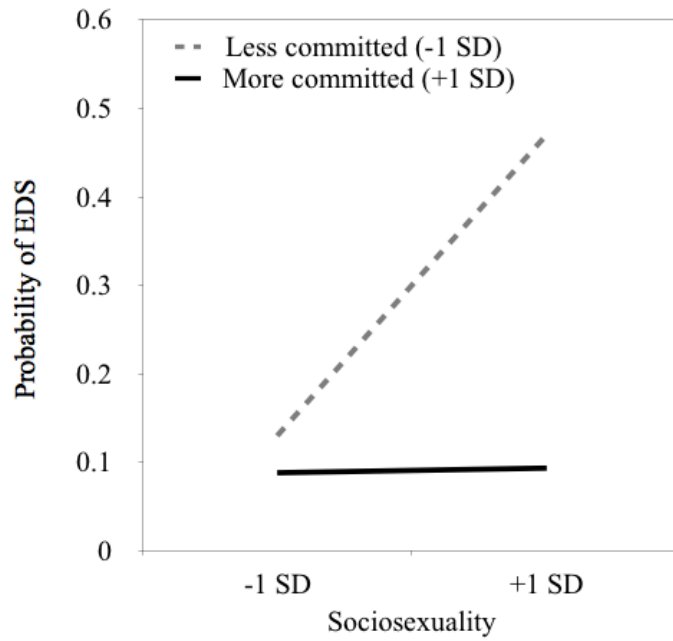


Figure 2. Simple slope analyses for the association between sociosexuality and commitment according to relationship agreement (Study 2).

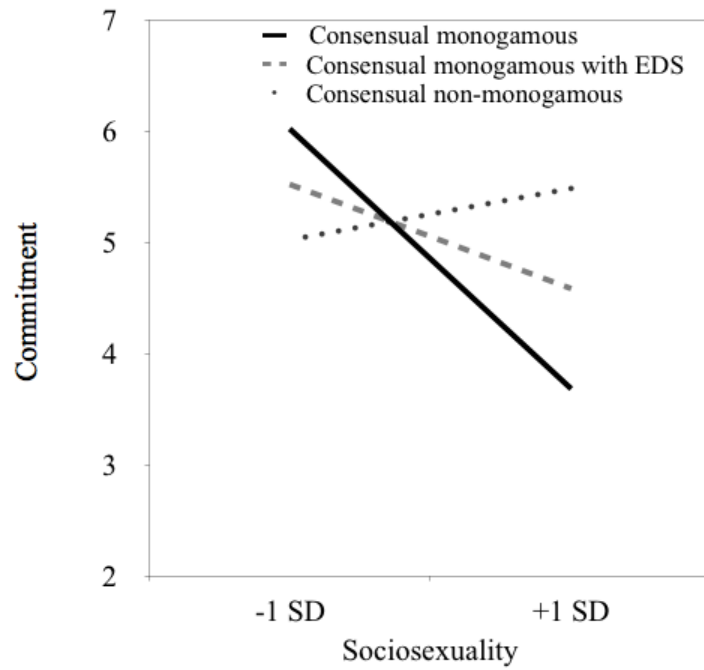


Figure 3. Simple slope analyses for the association between sociosexuality and satisfaction according to relationship agreement (Study 2).

