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A communal approach to sexual need responsiveness in romantic relationships

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ABSTRACT

Sex is a crucial factor that impacts the quality and stability of relationships, yet many couples report recurrent sexual issues – such as discrepancies in their desired sexual frequency or levels of sexual desire – that detract from their relationship quality. This article describes how applying the theory of communal motivation from relationship science to the sexual domain of relationships can shed light onto understanding how couples can maintain desire over time, remain satisfied in the face of conflicting sexual interests, and decline one another's sexual advances in ways that protect their relationship. We integrate a decade of research on communal motivation, sexual rejection, and responses to sexual rejection to provide a better, and more holistic, understanding of how partners can successfully balance their sexual needs to ultimately reap the powerful rewards of a fulfiling sexual connection.

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Romantic relationships profoundly shape physical health (Holt-Lunstad et al., 2010) and psychological well-being (Diener & Seligman, 2002) by providing people with intimacy, support and companionship. Even with these powerful benefits, satisfying romantic relationships are difficult to maintain, with 40–50% of marriages in Europe (Eurostat, 2019), the United States (Pew Research Center, 2017) and Canada (Kelly, 2015) ending in divorce. Sexual intimacy is a core ingredient of happy, stable relationships (e.g., Birnbaum & Finkel, 2015; Sprecher, 2002), yet many couples find it challenging to maintain feelings of passion and desire over the course of a long-term relationship (see reviews by Impett et al., 2014; Carswell & Impett, under review). Sexual desire tends to decline with increased relationship duration (Baumeister & Bratslavsky, 1999; Schmiedeberg & Schröder, 2016), particularly when couples transition to parenthood

(Ahlborg et al., 2005; Woolhouse et al., 2012) and older adulthood (DeLamater, 2012; Syme, 2014). More than one-third (38%) of partners in long-term relationships report experiencing a sexual issue (e.g., low desire, disagreements about preferred sexual frequency; Miller et al., 2003), and, in the majority of long-term, heterosexual relationships, one partner has chronically lower sexual desire than the other (Davies et al., 1999; Mark, 2015). Conflicts about sexual issues fuel interpersonal vulnerability (Rehman et al., 2019, 2017), are more impactful than non-sexual conflicts in predicting relationship quality (Rehman et al., 2017), and are one of the most difficult types of conflict to resolve (Geiss & O'Leary, 1981; Sanford, 2003).

To better understand how couples can successfully manage situations in which their sexual interests diverge, the bulk of previous research has examined factors that boost or reignite sexual desire to increase couples' sexual frequency and satisfaction (Impett et al., 2015). It is certainly important for romantic couples to prioritise sex since sexual frequency is robustly linked with increased life and relationship satisfaction (Kashdan et al., 2018; Muise et al., 2016). However, because it is not always possible or optimal for partners to engage in sex, especially when they have low desire (Impett & Peplau, 2003), they may frequently be in the position of needing to decline one another's sexual advances. Indeed, married and cohabiting couples report that sexual rejection occurs about once a week (Byers & Heinlein, 1989; Dobson et al., 2020), which is the same frequency with which couples in long-term relationships report engaging in sexual activity (Muise et al., 2016). Given this, another critical way to help couples successfully navigate differences in their sexual interests - one that has received much less attention by relationship and sexuality researchers – is to understand how people can sensitively decline a partner's sexual advances and respond to sexual rejection.

In this article, we provide a synthesis of the empirical studies we have conducted over the past decade that have taken a communal approach to the study of sexuality (see reviews by Impett et al., 2015; Muise & Impett, 2016). This perspective provides insight into how some couples are able to maintain desire over time and remain satisfied during times when partners experience differing sexual interests, as well as more successfully balance their sexual needs. At the core of this perspective is the idea that romantic partners are dependent on one another to meet their sexual needs given that the majority of long-term couples are monogamous (Blanchflower & Oswald, 2004) and partners rely on one another exclusively for sexual fulfilment. This sets the sexual realm apart from other relationship domains in which partners are able to get their emotional and social needs (e.g., engaging in leisure activities, providing or receiving emotional support) met by people outside the relationship (Rubin et al., 2014).

We organise this article on a communal approach to sexual need responsiveness in four parts. First, we introduce the theory of communal motivation (Clark & Mills, 2011), apply this theory to the study of sexuality, and discuss distinctions between sexual communal motivation and other relevant theories in relationship science. Second, we review research demonstrating the relationship rewards of having a strong communal motivation to meet a partner's sexual needs, even when partners have conflicting interests, unmet sexual ideals, or diagnosed clinical issues, as well as boundary conditions of these effects. Third, we discuss the navigation of situations in which one partner is *not* interested in sex, specifically examining how partners can most responsively decline one another's advances and respond to sexual rejection to preserve the quality of their connection. Fourth, we integrate our work on sexual communal motivation and sexual rejection to understand how partners can most effectively balance their sexual needs, concluding with some considerations for future research.

At the outset, we would like to define the scope of our article. First, the research that we review focuses primarily on heterosexual individuals and couples, and future research with more diverse samples is certainly needed to provide evidence for the generalisability of the effects. Second, most of the research focuses on convenience samples of couples drawn from the community, although when relevant, we discuss recent studies of couples with diagnosed clinical sexual issues. Third, many of the processes we cover apply to both women and men in romantic relationships, but at the end of the article, we discuss any relevant gender differences in the effects.

Applying the theory of communal motivation to the sexual domain

In romantic relationships, partners inevitably face situations in which their interests or preferences conflict, termed interdependence dilemmas (see review by Rusbult & Van Lange, 2008). In these dilemmas, partners have to decide whether they will behave in a communal fashion in which they will try to satisfy the other person's needs or desires (Clark & Aragón, 2013; Mills et al., 2004), even if incurring costs for the self, or whether they will behave in a more individualistic fashion and prioritise their own needs and desires. According to interdependence theory, as two people in a relationship become increasingly interdependent, a transformation of motivation occurs in which individualistic preferences give way to communal preferences (Thibaut & Kelley, 1959). To the extent that two partners' preferences are interwoven, they are each more likely to adopt goals to maintain the other person's well-being in addition to their own well-being.

Building on interdependence theory, the theory of communal motivation suggests that in communal relationships - such as those we have with family

members, romantic partners, and close friends - people provide care noncontingently; that is, they give care to each other with little concern for what they will receive in return. In contrast, in exchange relationships, benefits are given with the expectation of direct reciprocation, with partners tracking benefits to keep things even (Clark & Mills, 2011). Romantic partners indicate that following communal norms as opposed to exchange norms is ideal in long-term relationships as doing so creates opportunities for couples to engage in mutually enjoyable activities that meet both partners' needs (Clark et al., 2010). Although initial research has documented broad differences between communal and exchange relationships, more recent work has shown that across close relationships, people vary in the extent to which they feel responsible for meeting a partner's needs. Individual differences in the motivation to respond non-contingently to a specific partner's needs are referred to as communal strength (Mills et al., 2004). People high in communal strength report feeling more authentic and satisfied with their relationships on days when they sacrifice for the good or their partner or their relationship (Kogan et al., 2010). In addition, people high in communal strength give to their partner insofar as the personal costs incurred in meeting their partner's needs are reasonable, and they trust that their partner will be responsive to their own needs when they arise (Mills et al., 2004). Thus, rather than trying to make sure a partner's caring acts are reciprocated in a tit-for-tat fashion, highly communal people are guided by norms in which partners provide more balanced care in the relationship.

Individual differences in strength of sexual communal motivation

Interdependence dilemmas can take place in any domain in which partners are dependent on one another. Perhaps no other specific relationship domain involves more dependence between partners than the domain of sexuality, given that the majority of couples rely on one another almost exclusively for sexual need fulfilment. Over the past decade, we have conducted a body of research applying the theory of communal motivation to understand how couples resolve common interdependence dilemmas in the sexual domain. In particular, in situations in which partners experience conflicting sexual interests (e.g., discrepant levels of sexual desire), partners can transform their motivation to be more communal than individualistic in several key ways that are the focus of this article. In situations in which one partner is not interested in engaging in sex but their partner's desire is high, they could consent to engage in sex to please their partner or keep harmony in the relationship (Impett & Peplau, 2003), or alternatively, they could sensitively decline their partner's advances by reassuring their partner of their continued love and attraction (J. J. Kim et al., 2018). In situations in which one partner is interested in engaging in sex but the other is "not in the



mood," they could accept their partner's disinterest and refrain from initiating sex (Muise, Kim et al., 2017), or alternatively, if they do initiate sex and have their advances rejected, they could respond with care and understanding rather than resentment and hostility (Kim et al., 2019).

A common thread underlying the resolution of these different sexual interdependence dilemmas is that when romantic partners experience differing sexual needs, they aim to respond to these needs in ways that enhance a partner's well-being, but without the expectation that their partner will directly reciprocate their actions. People who are high in sexual communal strength are motivated to do just that: to be noncontingently responsive to their partner's sexual needs (Muise et al., 2013). In eight studies comprising a total of 2,421 individuals (Muise & Impett, 2019), we developed a reliable and valid self-report measure capturing individual differences in the strength of people's motivation to meet their partner's sexual needs (e.g., "How far would you be willing to go to meet your partner's sexual needs?" and "How likely are you to sacrifice your own sexual needs to meet the sexual needs of your partner?" (Mean = 5.56; SD = .94; 7-point scale¹). Our qualitative research has shown that people high in sexual communal strength report that they sometimes engage in sex with their partner when they are not entirely in the mood, keep an open mind about their partner's preferences, communicate with their partner about their sexual likes and dislikes, and try to ensure that both partner's needs are met in sexual interactions (Muise & Impett, 2015). We have shown that it crucial to measure people's sexual communal strength independent of their more general communal strength given that these measures are only moderately correlated (r = .45; Muise & Impett, 2015) and that all of the effects of sexual communal strength that we have documented exist above and beyond any influence of people's more general tendencies to be communally oriented in their relationships (e.g., Muise & Impett, 2015; Muise et al., 2013).

Distinctions from other relational theories

In defining sexual communal strength, it is important to discuss distinctions between the motivation to meet a partner's sexual needs and other relevant relational theories, including interdependence theory (Thibaut & Kelley, 1959), social exchange theory (see Sprecher & Sprecher, 1998 for a review) and the broad, organising theoretical framework of perceived partner responsiveness (Reis, 2007).

Interdependence theory fittingly highlights why situations in which partners' interests diverge are commonplace and central to relationships and their successful maintenance. However, it is less specific in prescribing the

¹Mean and standard deviation are from Study 2 reported in Muise and Impett (2019).

ways partners may be able to best go about managing these situations. A communal approach may be uniquely poised to understand sexual need fulfilment between romantic partners as it is grounded in a need-based perspective. As such, it is particularly relevant for understanding specific situations of how people feel about and resolve interdependence dilemmas in which meeting the needs of a specific relationship partner is often at the forefront. A communal perspective suggests that decision-making should be based on whosever need is the strongest, and that this can vary across people and situations.

In theory on communal motivation more broadly, communal relationships have been contrasted with exchange relationships in which benefits are given with the expectation of receiving a comparable benefit in return (or in response to benefits received in the past) (Clark & Mills, 2011). Therefore, communal approaches involve need-based giving whereas exchange approaches are focused on keeping things even between partners to maintain a sense of "fairness." Although previous work guided by the Interpersonal Exchange Model of Sexual Satisfaction (IEMSS; see review by Byers & Wang, 2004) has shown that people tend to be most sexually satisfied when they perceive that both partners are relatively equal in sexual rewards and costs (Lawrance & Byers, 1995), in our recent work we have found that endorsing sexual exchange norms in relationships – aiming to keep things even sexually between partners – is associated with lower sexual and relationship satisfaction (Raposo et al., in press). It is possible that a focus on keeping things even makes sex feel more transactional and less intimate, whereas being communal and focusing on being responsive to a partner's specific sexual needs fosters closeness.

Perhaps the relational construct with the most seeming overlap with communal strength is responsiveness, defined as expressing understanding, validation, and caring for a partner's needs (Reis et al., 2004). Communal strength refers to one's motivation to be attuned to and motivated to meet a partner's needs (Mills et al., 2004), whereas responsiveness (most of the relevant work in this area has looked at perceived partner responsiveness) reflects the extent to which individuals believe their relationship partners understand, validate, and care for them (Reis, 2007). In the domain of sexuality, people higher in sexual communal strength are perceived as more responsive to their partner's needs during sex (Muise & Impett, 2015), but there is a distinction between trait level sexual communal strength and perceived partner responsiveness. More specifically, one key reason why having a partner who is high in sexual communal strength might be beneficial for relationships is because partners higher in sexual communal strength are perceived as more responsive in general (Muise et al., 2013) and to the person's needs during sex specifically, and in turn, perceived partner responsiveness is associated with higher sexual and relationship



quality (Muise & Impett, 2015). That said, one of the key differences between sexual communal strength and responsiveness (generally and specifically for sex) is that sexual communal strength is the motivation to meet a partner's need without the expectation of direction reciprocation. Whereas responsiveness is enacted or perceived care provided to a partner, sexual communal strength is more of a motivation to meet a partner's sexual needs and is less about, although linked to, actual responsive behaviours.

Rewards of sexual communal motivation

The growing body of research on communal approaches to sexuality documents the personal and relationship rewards of sexual communal motivation, even when partners' sexual interests conflict and sexual ideals are unmet, as well as the importance of not losing sight of one's own sexual needs in romantic relationships. Given the highly interdependent nature of sexual interactions in relationships, situations in which romantic partners are tasked with fulfiling one another's sexual needs are particularly important to study using a dyadic approach. As such, this work is often guided by the Actor-Partner Interdependence Model (Kenny et al., 2006) which utilises a dyadic framework to account for the interdependence inherent in romantic partners' sexual lives, and provides greater understanding of the ways in which partners can influence one other in their sexual motivations and behaviours. The Actor-Partner Interdependence Model allows researchers to simultaneously determine the effect of a person's own independent variable on their own outcomes (known as an actor effect) as well as the effect on their partner's outcomes (known as a partner effect). Approaching the benefits of sexual communal motivation through a dyadic analytical lens is especially valuable as it contributes to an understanding of couples' sexual interactions as a product of their dyadic environment rather than a sum of individual experiences.

Across a wide body of studies (see Table 1), we find consistent evidence that sexual communal strength is associated with benefits for both partners in a relationship. Perhaps the most intuitive finding from our research, demonstrated in a sample of 118 couples with a 3-week follow-up and a 21day experience sampling study of 44 couples, is that people with communally motivated partners do, in fact, report that their partners are more responsive to their sexual needs, and in turn, report greater satisfaction and commitment (Muise & Impett, 2015). In another 21-day study of 101 couples, the partners of people higher in sexual communal strength also reported high subjective feelings of sexual satisfaction (Day et al., 2015). Additional evidence from related research on sexual transformations (i.e., changes made to one's own sexual habits such as increasing sexual frequency) suggests that when one person makes a sexual transformation, their partner reports higher

Table 1. Actor and	Table 1. Actor and partner effects of sexual communal strength on relationship and sexual outcomes in eight published papers.	ength on relations	ip and sexual outcomes in eight ا	oublished papers.
Article	Sample	Method	Actor Effects	Partner Effects
Muise et al. (2013)	Community sample ($N = 44$ couples)	21-day daily experience study with 4-month longitudinal follow-up	Greater daily sexual desire (b = .90) Sustained sexual desire over four months (b =.53)	*No significant partner effect on sexual desire
Muise and Impett (2015)	Study 1: Community sample (N = 118 couples)	Three-week longitudinal study	Greater baseline(b = .32) and daily relationship satisfaction (b = .18) Greater baseline (b = .26) and daily commitment (b = .24)	Greater partner relationship satisfaction at baseline (b =.24), daily (b =.20) and marginal increases in partner satisfaction three weeks later (b =.13) greater partner commitment at baseline (b = 12) and large of the partner commitment at baseline (b = 12) and large of increases in
				(b12), daily (b27) and increases in partner commitment three weeks later (b =.14)
Muise and Impett (2015)	Study 2: Community sample (N = 44 couples)	21-day daily experience study	Greater daily relationship quality (aggregate of satisfaction and commitment; b =.43)	Greater partner daily relationship quality (aggregate of satisfaction and commitment; b = .31)
Day et al. (2015)	Study 1: Individuals from Amazon's Mechanical Turk ($N=456$)	Experimental study	Greater relationship satisfaction $(t = 2.58)$ Greater sexual satisfaction $(t = 2.05)$	[data was not dyadic]
Day et al. (2015)	Study 2: Individuals from Amazon's Mechanical Turk (N = 371)	Cross-sectional study	Greater willingness to engage in undesired sex (b =.39) Greater relationship satisfaction (b =.49) Greater sexual satisfaction (b =.50)	[data was not dyadic]
Day et al. (2015)	Study 3: Community sample (N = 101 couples)	21-day daily diary	Increased daily likelihood of engaging in sex (b = .18) Greater daily relationship satisfaction (b = .20) Greater daily sexual satisfaction (b = .37)	Greater partner daily relationship satisfaction (b =.16) Greater partner daily sexual satisfaction b =.16)

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Article	Sample	Method	Actor Effects	Partner Effects
Muise, Bergeron et al. (2017)	Muise, Bergeron et al. Women diagnosed with vulvodynia and (2017) their partners (N = 95 couples)	52- day daily diary study	Greater daily sexual satisfaction (women's b =.20; partner's b =.22) Greater daily sexual functioning (women's b = 1.53; partner's b =.93)	Greater partner daily relationship satisfaction (partner's SCS → women b =.10; women's SCS → partner b =.110) Greater partner daily sexual satisfaction (partner SCS → women b =.18; women's SCS → partner b =.17) Greater partner daily sexual functioning (partner SCS → women b = 1.47; women's SCS → partner b = 2.44)
Muise et al. (2018)	Women diagnosed with vulvodynia and their partners (95 couples)	52- day daily diary study	Lower daily sexual pain (only for women, $b = -2.4$) Lower daily anxiety (only for women, $b = -1.2$)	No significant partner effects
Muise et al. (2019) [Study 2]	Individuals in consensually nonmonogamous (CNM) relationships (N = 649; N = 410 from community websites, 239 from Amazon's Mechanical Turk)	Cross-sectional study	Greater relationship satisfaction Greater sexual satisfaction	[data was not dyadic]
Impett et al. (2019)	Community sample (N = 122 couples)	21-day daily diary study	Greater daily relationship satisfaction (b =.10) Greater daily sexual satisfaction (b =.11) Greater daily sexual desire (b =.15)	Higher partner daily sexual desire (b =.11)
Hogue et al. (2019)	Women diagnosed with Female Sexual Interest/Arousal Disorder and their partners (N = 97 couples)	Cross-sectional study	Greater sexual desire (women's b = 3.73, partner's b = 5.63) Greater sexual satisfaction (only for women, b = 3.68)	No significant partner effects

Table 1. (Continued).

partner effects refer to effects of a person's sexual communal strength on their partner's outcomes, controlling for their partner's own sexual communal strength; all of the coefficients are taken from the original articles; b coefficients represent unstandardised MLM coefficients; all coefficients are significant at p <.05 unless otherwise noted; * denotes Note: Actor effects refer to effects of a person's own sexual communal strength on their own outcomes, controlling for the influence of their partner's sexual communal strength; effects not tested and reported in the original paper, but effects we tested for the purposes of inclusion in this table.

relationship quality (Burke & Young, 2012). Our qualitative research confirms these findings by showing that one way that people demonstrate their communal responsiveness is by talking about likes and dislikes with their partners so that they can be more in tune with their partner's preferences (Muise & Impett, 2015). Further, responsiveness to a partner's sexual needs is especially beneficial for people high in attachment anxiety (i.e., individuals who crave intimacy and fear rejection; Mikulincer & Shaver, 2016). In a 21day daily experience study of 121 couples, on days when people high in attachment anxiety perceived their partner as more communally motivated to meet their sexual needs, they maintained higher levels of relationship satisfaction than on days when they perceived their partner as less communal (Raposo & Muise, 2019).

The associations between sexual communal strength and sexual and relationship satisfaction also extend to people in consensually nonmonogamous (CNM) relationships (Muise, Laughton et al., 2019). Specifically, across both their primary and secondary relationships, people in CNM relationships who perceived their partner as more sexually communal reported higher sexual and relationship satisfaction in that same relationship. In some cases, there were carry-over effects to the other relationship; when people perceived their primary partner as more sexually communal, they reported higher sexual and relationship satisfaction with a secondary partner. Our research on people in CNM relationships includes the most diverse samples in terms of gender and sexual orientation across all of the studies we have conducted on sexual communal strength. Given that we did not find differences across gender or sexual orientation, this works provides some preliminary evidence that associations between sexual communal strength and satisfaction may generalise to more diverse populations.

In addition to providing benefits for the partner, focusing on meeting a partner's sexual needs is also linked to increased benefits for the self. In a sample of long-term couples, sexual communal strength was positively associated with a person's own sexual desire and satisfaction (Muise & Impett, 2015; Muise et al., 2013). In a 4-month longitudinal study of 44 longterm couples who had been together for an average of 11 years, whereas people lower in sexual communal strength experienced declines in sexual desire, people high in sexual strength began the study with slightly higher desire and were able to maintain sexual desire over time (Muise et al., 2013). One key reason why individuals high in sexual communal strength experience these benefits is because they are genuinely motivated to promote positive outcomes in their relationships (i.e., approach goals) such as intimacy and connection, and not because they are motivated to avoid negative outcomes (i.e., avoidance goals) such as conflict, a partner's disappointment, or feelings of guilt (Muise et al., 2013). This research suggests that people high in sexual communal strength engage in sex out of a genuine desire to



promote their partner's enjoyment rather than out of a sense of duty or obligation, and this is one reason why they experience relationship and sexual benefits.

When sexual interests conflict or ideals are not met

The picture painted by existing research demonstrates clear benefits of sexual communal motivation for both partners. A particularly stringent test of the potential benefits of sexual communal strength is whether communal people are also willing to meet their partner's needs in situations in which partners have different sexual interests. In a 21-day daily experience study of 101 community couples, people high in sexual communal strength indicated that they would be more willing to engage in sex and reported increased sexual and relationship satisfaction, even on days when they reported having lower sexual desire than their partner, relative to less communal people (Day et al., 2015). In addition and as shown in Figure 1, whereas less communal people experienced lower sexual satisfaction on days when they engaged in sex but were not in the mood compared with days when both partners experienced similarly high levels of sexual desire, strikingly, however, people high in sexual communal strength felt equally sexually satisfied on days when their desire was similar to their partner's desire and on days when they were less sexually enthused than their partner (Day et al., 2015). These results suggest that communal people also benefit from responding to their partner's sexual needs in more challenging situations, such as when partners experience a significant desire discrepancy.

The motivation to meet a partner's sexual needs can also be beneficial when couples have more chronic sexual differences or unfulfilled needs. Across four studies using dyadic, daily experience, longitudinal and experimental methods (N = 1,532), when a person reported or was made to believe that their sexual ideals (i.e., characteristics or traits that they desire in a sexual partner) were unmet, they reported feeling less satisfied with their sex life and relationship, as well as less committed to maintaining their relationship over time. However, people who had partners who were higher in sexual communal strength were buffered against the lower satisfaction and commitment associated with having unmet sexual ideals (Balzarini et al., in press). In other words, people whose partners were low in sexual communal strength reported lower sexual satisfaction and relationship quality when they had unmet sexual ideals in the relationship, whereas people with partners high in sexual communal strength were able to maintain sexual and relationship quality even when they had unmet sexual ideals (see Figure 2 for the findings for sexual satisfaction; the pattern of results was the same for relationship satisfaction and commitment). The benefits of sexual communal strength in a relationship are not attributed to communal people engaging in more



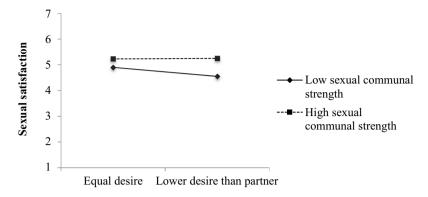


Figure 1. The buffering effect of sexual communal strength on the association between desire discrepancy and sexual satisfaction (adapted from Day et al., 2015, Study 3).

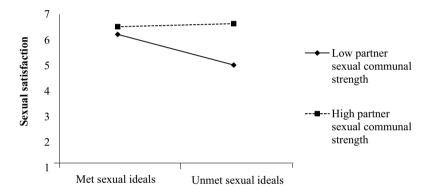


Figure 2. The buffering effect of a partner's sexual communal strength on the association between unmet sexual ideals and sexual satisfaction (adapted from Balzarini et al., in press, Study, 1).

frequent sex. In fact, sexual communal strength is often not associated with sexual frequency, but instead, people high in sexual communal strength tend to be responsive and understanding about their partner's sexual needs and, in turn, sex is more enjoyable for both partners.

Couples also face times in their relationships when partners are more likely to experience differences in their sexual interests. During the transition to parenthood, both partners, but especially women who give birth, report changes in their sexual desire (McBride & Kwee, 2017). In one study, in the year after the birth of their first baby, women reported lower sexual desire compared to women who did not transition to parenthood, and compared to their own partner (Schwenk et al., 2020). Importantly, however, in a sample of 279 new parent couples, we found that new parents who were higher in



sexual communal strength reported greater satisfaction with their sex lives and relationships, as did their romantic partners (Muise, Kim et al., 2017).

The benefits of sexual communal strength also extend to couples who are coping with clinical sexual issues. In an intensive 56-day daily experience study of 95 couples, on days when women diagnosed with vulvodynia (i.e., pain during sex; Rosen & Bergeron, 2019) and their partners reported higher sexual communal strength, both partners reported greater sexual and relationship satisfaction and better sexual functioning (Muise, Bergeron et al., 2017), and women reported less pain (Muise et al., 2018). Similarly, in a sample of 97 women (and their partners) diagnosed with Sexual Interest Arousal Disorder (i.e., low sexual desire or arousal accompanied by distress), both women and their partners reported greater sexual satisfaction when the woman was higher in sexual communal strength, and the woman herself reported higher sexual desire (Hogue et al., 2019). Because this clinical research focused solely on women, future research is needed to determine if men who are more sexually communal (or have partners who are more sexually communal) may also be better able to cope with their own sexual challenges (e.g., erectile dysfunction).

The importance of attending to one's own sexual needs

Of course, there are situations in which it is not possible or preferred to meet a partner's sexual needs (Impett & Peplau, 2003; Katz & Tirone, 2009). People who are communally motivated not only strive to meet their partner's needs, but also expect that their partner will be similarly motivated to meet their own needs when they arise (Mills et al., 2004). Although the motivation to meet a partner's sexual needs can be beneficial for both partners, doing so to the exclusion of one's own needs is unlikely to be beneficial for either partner in the relationship. Indeed, research has shown that individuals high in unmitigated communion (i.e., the tendency to give to others without concern for one's own needs; Fritz & Helgeson, 1998) experience more negative affect and less positive affect in situations of interpersonal conflict than those whose communal motivation is mitigated by their own sense of agency (Nagurney, 2007). In essence, people higher in unmitigated communion take the value of interpersonal connectedness to an unhealthy extreme, prioritising the needs of others while neglecting their own psychological and physical well-being (Fritz & Helgeson, 1998).

Applied to the domain of sexuality, we have found that although the motivation to meet a partner's sexual needs can be beneficial for both partners, these benefits begin to unravel when people strive to meet their partner's sexual needs to the exclusion of their own needs. People who are high in unmitigated sexual communion indicate that they focus solely on their partner's sexual needs, placing those needs over their own (e.g., "I put

my partner's sexual needs ahead of my own" and "It is impossible for me to satisfy by own sexual needs if they conflict with my partner's sexual needs"). In a 21-day daily experience study of 122 couples, on days when people reported higher sexual communal strength (M = 5.33; SD = 1.36; 7-point scale), they attended more to positive sexual cues (e.g., partner responsiveness) and in turn, both partners experienced greater daily sexual and relationship satisfaction. In contrast, on days when people reported higher unmitigated sexual communion (M = 3.51, SD = 1.47; 7-point scale), they reported greater attention to negative sexual cues (e.g., feelings of distraction, detachment, or boredom), and in turn, experienced lower relationship and sexual satisfaction (Impett et al., 2019). Similarly, in both community samples and clinical samples of couples coping with a sexual dysfunction, sexual communal strength is associated with higher approach goals for sex, but not higher avoidance goals (Hogue et al., 2019; Muise et al., 2013) suggesting that, in general, being communally motivated to meet a partner's sexual needs is focused on the pursuit of positive relational outcomes and not to avoid conflict or a partner's disappointment. In contrast, people higher in unmitigated sexual communion do not report being more approach motivated to engage in sex (Hogue et al., 2019), and instead, may do so out of feelings of insecurity or obligation.

Whereas sexual communal strength may help couples more successfully navigate a clinical sexual issue, unmitigated sexual communion may exacerbate the challenges. In a 56-day study of 95 women diagnosed with vulvodynia (and their partners), on days when women reported higher sexual communal strength, they reported lower levels of anxiety and less pain during sex, whereas on days when women reported higher unmitigated sexual communion, they experienced greater pain during sex and more sexual distress and both partners reported lower satisfaction, more depressive symptoms, and poorer sexual functioning (Muise et al., 2018; Muise, Bergeron et al., 2017). Taken together, these findings suggest that even though people high in unmitigated sexual communion report being solely focused on meeting their partner's sexual needs, their partners do not benefit from this hypervigilance and, in some cases, report personal and interpersonal costs. These findings point to the importance of striking the right balance between being responsive to a partner's sexual needs and asserting one's own needs.

The importance of balancing needs in a relationship is consistent with other theoretical and clinical approaches in psychology. For example, differentiation is a process by which people manage their needs for both autonomy and connection with a partner (Schnarch & Regas, 2012). We suspect that people higher in sexual communal strength would be more differentiated in terms of having the capacity for connection with a partner alongside a having solid sense of their own needs, whereas people high in unmitigated

communion would be low in differentiation since they are challenged to express their own needs, although we do not yet have data to test this assertion. In thinking about potential application to clinical practice, clinicians could consider whether partners are struggling to understand or meet each other's needs or if they are overly focused on their partner and not asserting their own needs. Low responsiveness to a partner's sexual needs or responsiveness that involves self-neglect could be problematic for relationships and thinking about imbalances in relationships through a communal lens could provide novel insights into therapeutic intervention.

When the need is to not have sex

Almost all of the existing research that has taken a communal approach to sexuality has focused on people's motivation to meet a partner's needs for sex. In contrast, very little research has examined the other side of the coin what happens when people do not want to have sex - and if there are communal ways to buffer a partner against the emotional sting of sexual rejection and ways to respond to rejection that help couples preserve intimacy. The lack of research on sexual rejection is surprising given its prevalence in romantic relationships (about once a week, on average; Byers & Heinlein, 1989; Dobson et al., 2020). Many psychological theories indicate that human beings have a fundamental need to belong and feel accepted by others (e.g., Baumeister & Leary, 1995; Ryan & Deci, 2000), but experiencing interpersonal rejection - the refusal of desired social connectedness directly violates this need (Blackhart et al., 2009). People report that rejection by a romantic partner is one of life's most painful experiences (Leary et al., 1998), and the more an individual feels valued by and close to a person who rejects them, the more the rejection tends to hurt (Leary, 2001).

Sexual rejection involves the communication – subtle or explicit – to one's partner the desire or need to not have sex. Compared to other types of rejection, sexual rejection may be more emotionally painful and especially detrimental to well-being. In a pilot, cross-sectional study of 190 individuals in relationships, we found that people expected to feel more rejected, insecure, and dissatisfied when their partner rejected their advances for sex compared to when their partner declined their request to engage in a nonsexual activity such as going to dinner or attending a work function (Impett & Sisson, 2020). The private and often sensitive nature of sexual interactions tends to exacerbate emotional vulnerability when sexual conflicts arise (Rehman et al., 2019, 2017). Indeed, experiencing sexual rejection from a partner may lead individuals to doubt their self-worth and question their partner's interest in the relationship (Metts et al., 1992). People in both cohabitating and married relationships report feeling lower relationship and sexual satisfaction when their sexual initiations are met with refusal, as



opposed to acceptance, by their partner (Byers & Heinlein, 1989), and these effects can linger up to two days after rejection occurs (Dobson et al., 2020). Given the substantial impact that sexual rejection can have in romantic relationships, our work has sought to understand if there are specific ways that people can decline a partner's sexual advances and communicate sexual rejection, as well as respond to sexual rejection that can help couples sustain relationship and sexual satisfaction.

Communicating sexual rejection

Existing research on the communication of sexual rejection has been primarily examined in interactions among strangers, acquaintances, or potential romantic partners (e.g., Goodboy & Brann, 2010; Jouriles et al., 2014; Metts et al., 1992). One early study which focused on romantic relationships and relied on hypothetical scenarios showed that people expected to feel less discomfort and threat when sexual rejection was delivered with moderate, compared to very high or low, levels of directness, as it communicated rejection effectively, while also buffering the rejected person against embarrassment and shame (Metts et al., 1992).

In six studies comprising a total of 1,949 total participants, we developed the Sexual Rejection Scale (SRS; J. J. Kim et al., 2019) to extend the research on sexual rejection, identifying four distinct ways that people reject their partner's interest for sex. These included reassuring rejection (affirming attraction towards a partner or offering other forms of affection, e.g., "I reassure my partner that I love them"; Means = 2.78-3.51; SDs = .74-1.23; 5-point scale), as well as assertive rejection (stating clearly the reason for rejection; e.g., "I am clear and direct about the reason why I don't want to have sex"; Means = 2.85-3.35; SDs = .73-1.26), hostile rejection (expressing anger or criticising a partner; e.g., "I display frustration toward my partner"; Means = 1.4-2.4; SDs = .62 - .95), and deflecting behaviours (diverting attention away from the situation; e.g., "I pretend not to notice that my partner is interested in sex"; Means = 1.74-2.46; SDs = .79 - .96). In a 28-day experience sampling study of 98 couples, we then found that when people perceived their partner reject their advances in a reassuring manner, they maintained higher relationship and sexual satisfaction; however, when they perceived their partner reject their sexual advances in a hostile manner, they reported lower relationship satisfaction (Kim et al., 2020). Further, we found that perceptions of a partner's responsiveness (i.e., the extent to which their partner understands, validates, and cares about their needs) accounted for both of these links. Specifically, high perceived partner responsiveness accounted for the link between perceived reassuring behaviours and higher relationship and sexual satisfaction, whereas low perceived partner responsiveness explained why perceptions of a partner's hostile rejection were



associated with lower satisfaction (Kim et al., 2020). We have also shown that people who score high on our trait measure of sexual communal strength are the ones most likely to engage in reassuring rejection behaviours (Kim, Muise et al., 2019), suggesting that communally motivated people do not invariably engage in sex at their partner's behest and they remain responsive even when declining their partner's advances. Thus, reassuring rejection is an example of how communal care can be enacted.

Given that couples typically report higher satisfaction on days when they engage in sex compared to days when they do not (Muise et al., 2013), one interesting question concerns whether reassuring rejection is a viable alternative to engaging in sex when people find themselves more motivated to engage in sex for avoidance as opposed to approach-based reasons. In the daily experience study described above, in combination with two experimental studies (between- and within-person) of 642 individuals, we found that when people engaged in reassuring rejection, both they and their partner reported equivalent levels of relationship satisfaction compared to days when they engaged in sex for avoidance goals (see Figure 3 for the findings for the actor effect from Study 3; the pattern of results was the same for the partner effect). In contrast and as shown in Figure 4, sexual satisfaction was always higher on days when couples engaged in sex, regardless of their levels of avoidance motivation, suggesting that sexual satisfaction might be more dependent than relationship satisfaction on people getting their physical needs met (Kim et al., 2018). These finding suggest that when people find themselves in situations in which they need to decide whether to accept or decline a partner's sexual advances, they might need to weigh different factors depending on whether they are concerned with maintaining relationship as opposed to sexual satisfaction.

Responding to sexual rejection

An equally important and complementary aspect of understanding how couples can maintain their connection in the absence of sexual activity concerns how people respond to sexual rejection. Common emotions elicited in the context of more general interpersonal rejection include hurt, jealousy, loneliness, guilt, shame, embarrassment, anger, and sadness (Leary, 2001; Leary et al., 2001). The few studies that focus on responses to sexual rejection, just like the studies on how people reject a partner's sexual advances, have been conducted in the context of sexual encounters with strangers or casual sex partners (e.g., Struckman-Johnson & Struckman-Johnson, 1991; Wright et al., 2010) rather than with romantic partners. In our work, we sought to expand upon this work to examine people's emotional and behavioural responses to sexual rejection in the context of romantic relationships. In doing so, we developed and validated the Responses to Sexual Rejection

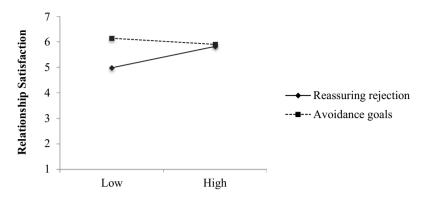


Figure 3. Actor effects of reassuring rejection (on sex days) and avoidance sexual goals (on non-sex days) at various degrees on daily relationship satisfaction (adapted from Kim et al., 2018, Study 2). Note: Low = one standard deviation below the mean on either reassuring rejection or avoidance goals; High = one standard deviation above the mean in either reassuring rejection or avoidance goals.

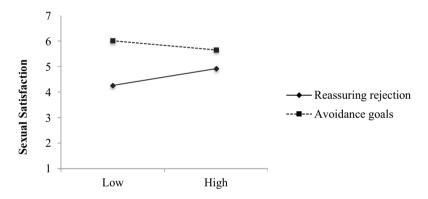


Figure 4. Actor effects of reassuring rejection (on sex days) and avoidance sexual goals (on non-sex days) at various degrees on daily sexual satisfaction (adapted from Kim et al., 2018, Study 2). Note: Low = one standard deviation below the mean on either reassuring rejection or avoidance goals; High = one standard deviation above the mean on either reassuring rejection or avoidance goals.

Scale (RSRS; Kim, Horne et al., 2019) with data from a total of 1,051 individuals in relationships. This work has uncovered four distinct responses to sexual rejection. Two of these – resentment responses (acting with anger and resentment, e.g., "I express anger at my partner"; Mean = 1.59; SD = .76, measured on a 5-point scale²) and insecure responses (expressing sadness and insecurity, e.g., "I think something is wrong in the relationship"; Mean = 2.15; SD = .99) – closely map onto responses identified in the

²The means and standard deviations are from Study 2 reported in Kim, Horne et al. (2019).

prior literature on sexual refusals in the context of stranger or casual sex encounters (Wright et al., 2010). However, two of these were more unique to the context of romantic relationships, including enticing responses (trying to entice a partner and continuing to pursue sex; e.g., "I ask if there is anything I can do to get my partner in the mood"; Mean = 2.31; SD = 1.03), as well as, most commonly and of particular interest in this article, understanding responses (showing acceptance and understanding when a partner does want to engage in sex; e.g., "I am understanding and accepting"; Mean = 3.27; SD = 1.06).

Consistent with our communal perspective on sexuality, we have found that people who scored high on our trait measure of sexual communal strength were the ones most likely to respond to rejection with understanding and the least likely to respond with hostility or insecurity (Kim, Horne et al., 2019), suggesting that communal people also show responsiveness to a partner's needs when sex does not occur. In addition, we found that, in the context of the transition to parenthood in which new mothers often report lower sexual desire than their partners, new mothers who were higher in sexual communal strength had partners who expressed greater understanding about mothers' lower interest sex (Muise, Kim et al., 2017). Insofar as communal motivated individuals are models for maintaining sexual intimacy in relationships (e.g., Muise et al., 2013) and being responsive to a partner's sexual needs both when they engage in sex and do not engage in sex, this emerging evidence suggests that expressing understanding in response to sexual rejection may be integral for buffering partners from the negative experiences associated with sexual rejection, although this possibility needs to be tested in future research.

Balancing sexual needs in relationships

Our article thus far has focused on how partners can express care and understanding in situations in which they desire, as well as do not desire, to engage in sex. However, we do not view these as isolated processes, and instead, think that the ways that people pursue sexual intimacy as well as deliver and respond to sexual rejection are intricately interwoven. In this final part of our article, we synthesise and integrate what we have learned from research on sexual communal motivation and sexual rejection to discuss how partners can better balance their sexual needs in romantic relationships and conclude this section with future research directions.

Risk regulation theory

A prominent theoretical perspective in relationship science, risk regulation theory (Murray et al., 2006), is uniquely positioned to inform how couples can balance their simultaneous need to experience intimacy with their need to avoid experiencing the pain of rejection. Risk regulation theory highlights the importance of perceptions of a partner's responsiveness – that is, feeling that a partner understands, validates, and cares about one's needs (Reis et al., 2004) – in determining how people respond to rejection. Specifically, people who perceive low partner responsiveness seek to guard against the pain of rejection by minimising closeness and dependence on their partner, whereas those who perceive high responsiveness are able to use these perceptions as a resource to buffer them against the sting of rejection and, instead, prioritise their needs for intimacy and connection to ultimately bolster the relationship (Murray et al., 2006).

It is possible that either of these two core needs – the need to approach intimacy and the need to avoid rejection – could be heightened in the context of sexual interactions in romantic relationships. On the one hand, the need to avoid the pain of rejection may be especially strong since people could easily interpret a partner's sexual rejection as a sign of their waning interest in the relationship. At the same time, given the powerful emotional and physical rewards of sexual activity in romantic relationships (Debrot et al., 2017; Diamond & Huebner, 2012), the need to pursue connection may also be heightened in this context. Risk regulation theory suggests that the way people balance these two needs is based, at least in part, on their confidence in a partner's regard, as can be demonstrated through perceptions of their partner's responsiveness. Applying risk regulation theory to the context of sexual rejection, when people are unsure of their partner's regard or responsiveness to their sexual needs (e.g., when sexual advances made towards a partner have been frequently declined in the past), they may be motivated to guard against the pain of sexual rejection by withdrawing from situations that could afford intimacy and avoiding future sexual interactions with their partner. In contrast, the receipt and experience of high levels of responsiveness from a partner may lead people to prioritise and continue to pursue their needs for intimacy and connection, even when their sexual advances are declined.

Recent empirical evidence

Our own recent research provides initial support for these broad theoretical ideas. In a 28-day experience sampling study of 98 couples (Debrot et al., 2019), people who perceived their partner reject their interest in sex in a reassuring manner reported increased understanding of sexual rejection and in turn, enhanced approach motives to engage in sex, such as pursuing intimacy or pleasing a partner. In contrast, people who perceived their partner reject them in a hostile manner were more likely to respond with anger, which was associated with dampened approach motives. In addition, perceptions of hostile rejection were associated with increased insecurity in



the rejected partner, which were in turn associated with increased motivation to avoid negative outcomes such as conflict and a partner's disappointment when engaging in sex. This work is the first in the literature to demonstrate the usefulness of risk regulation theory in strengthening our understanding of sexual rejection dynamics in ongoing romantic relationships.

There are also certain ways of rejecting a partner's sexual advances that promote the motivation to engage in non-sexual affectionate behaviours which might allow for sexual need fulfilment to occur in other ways. In the same daily experience study of 98 couples described above, on days when people rejected their partner's interest in sex in a more reassuring manner, they engaged in more frequent non-sexual affectionate behaviours (e.g., hugging, kissing, cuddling), and reported doing so for more partnerfocused reasons, such as to promote intimacy in the relationship. This new empirical data linking reassuring rejection to approach sexual motivation as well as affectionate touch is important because it shows that even in the context of sexual rejection, there is still a path to intimacy and connection through affectionate behaviours and the pursuit of positive sexual experiences in the future. The findings from this emerging line of research indicate the importance of demonstrating responsiveness, even in the absence of sex, in helping couples to express and sustain interest in sex and affection.

Gender differences

Given the extensive literature on gender differences in sexuality in relationships (see review by Peplau, 2003), a natural point of interest across this body of research concerns the extent to which the findings are influenced by gender. Broadly, the patterns and effects of sexual responsiveness in relationships outlined in this article tend be largely consistent across gender. However, certain differences do emerge. For example, we find in multiple samples that men tend to have higher mean levels of sexual communal strength than women, for example, in Study 1 (men = 5.69 and women = 5.42on 7-point scale) and Study 2 (men = 3.12 and women = 2.83 on 0-4 point scale) in Muise et al. (2013). While this contrasts with previous work showing that women are generally more communally motivated than men in line with their social role (Le et al., 2018), this finding is likely due to men's tendency to have greater sexual desire and interest (Baumeister et al., 2001). Indeed, once accounting for men's higher sexual desire, men and women did not differ in sexual communal strength in any of our studies. Additionally, few consistent gender effects emerge in terms of the role of sexual communal motivation in shaping relationship and sexual outcomes.

We do, however, observe select gender differences in how men and women engage in and experience sexual rejection. For example, one consistent finding from this work is that women tend to reject their partner's sexual advances more frequently than do men, in line with traditional sexual scripts depicting men as the initiators and women as the gatekeepers in sexual situations (Byers, 1996). For example, in our study of 98 couples' daily sexual experiences, women reported engaging in sexual rejection on a greater number of days (17%) compared to men (9%), $\chi^2(1) = 68.27$, p < .001. However, when examining the specific ways that men and women reject their partner's advances, men tended to be more hostile (men: M = 2.10, SD = 1.46; women: M = 1.63, SD = 1.13) and deflecting (men: M= 2.18, SD = 1.38; women: M = 1.70, SD = 1.10) in their communication of sexual disinterest than women. Thus, women may engage in more sexual rejection on average, but when men do engage in sexual rejection, they do so in more hostile and deflecting ways, perhaps because they are challenging stereotypes that men do not decline sex.

Sexual script theory also appears to inform a gender difference in how people respond to sexual rejection from their partner. More specifically, we have found that men are more likely to respond to sexual rejection by engaging in greater sexual persistence (i.e., enticing responses) whereas women tend to exhibit greater insecure responses (such as feeling hurt or sad). This finding is again consistent with sexual scripts which cast men as always wanting to have sex and describe how women may be more likely to feel surprised and interpret rejection as a reflection of their own shortcomings if their sexual advances are declined (de Graaf & Sandfort, 2004; O'Sullivan & Byers, 1996). On the whole, however, we have found that the effects of sexual responsiveness on relationship and sexual satisfaction during situations of rejection are robust to and largely unaffected by differences in gender.

Future research directions

The underlying focus of the body of research covered in this article has been to examine how efforts to provide sexual need responsiveness to a partner can directly promote higher quality sexual relationships. However, this is not to suggest that these effects operate exclusively in this direction. To address questions of causality and rule out alternative explanations, many of the studies we have presented incorporate different types of methods, such as lagged analyses in longitudinal designs, or experimental manipulations of sexual communal motivation or perceived sexually responsive behaviours (e.g., Day et al., 2015; Kim et al., 2018). Yet, an important point of consideration is that the processes by which relationship and sexual outcomes are shaped by sexual communal motives and behaviours likely operate in the reverse direction as well. Individuals who are more satisfied or have higher desire may be inclined to report (or have their partners report) higher sexual

communal strength or reassuring rejection behaviours as a direct result. Indeed, a meta-analytic review on general communal motivation and wellbeing suggests that these links are likely bidirectional (Le et al., 2018). Thus, a key avenue for future work consists of mapping the precise ways in which positive sexual experiences and sexual communal motivation shape and are shaped by one another.

Our recent research on balancing partners' sexual needs in a relationship highlights the importance of including both partners in research and examining dyadic sexual processes over time. In particular, one person's responses to rejection might be informed by how their partner declined their sexual advances, and sexual rejection (and responses to sexual rejection) on a particular day might influence future sexual interactions and motivations. One notable direction for future research is to understand how sexual rejection unfolds between partners in the moment - how sex is initiated, declined and responded to - as well as how the accumulation of rejection behaviours and responses influences the quality of couples' relationship and sexual connection over time. Future behavioural observation research in which couples discuss an experience of sexual rejection could provide insight into how communally motivated partners communicate about and respond to sexual rejection. The ways that people communicate rejection to a partner in the moment might also influence the quality and nature of their sexual experiences over time, perhaps with more reassuring ways of rejecting a partner's sexual advances leading to greater approach motivation to pursue sex in the future.

Another important future direction that requires a dyadic approach involves examining the attributions that people make for their partner's sexual rejection. It is possible that people higher in sexual communal strength might make more benevolent attributions (i.e., attribute the cause of the rejection to external rather than internal factors; see review by Bradbury & Fincham, 1990) for their partner's rejection. Although not in the context of sexual rejection, recent research has shown that new mothers who reported more stable, partner-focused attributions for postpartum sexual concerns reported feeling less sexually satisfied (Vannier et al., 2018). Applied to the domain of sexual rejection, it is possible that communal people might be more likely to attribute their partner declining their sexual advances to something external (e.g., stress from a long day at work) as opposed to something internal (e.g., a lack of desire or interest in them), and these attributions may be a key driver of how people feel about their sex lives and relationships.

Another important future direction is to examine the relational functions and the underlying relational dynamics of sexual rejection. We have shown that reassuring sexual rejection - and not more assertive, direct forms of rejection in which people clearly communicate their reason for rejecting a partner's advances - communicates responsiveness to a partner's needs and protects the partner's satisfaction (Kim et al., 2020). However, it is likely

not functional for people to chronically reassure a partner when rejecting their sexual advances, demonstrate acceptance of a partner's low sexual desire, or respond to sexual rejection with understanding. Indeed, engaging in some of these behaviours habitually, especially in the face of chronic desire discrepancies between partners, may prevent couples from overcoming important challenges or obstacles in their sexual relationships. For example, in the case in which a person rejects their partner's sexual advances because they are "turned off" by how the partner initiates sex, it is likely more functional for partners to openly discuss their sexual likes and dislikes than to continually reassure a partner and express understanding. That is, reassuring rejection behaviours or understanding responses could prevent couples from making important changes to their sexual behaviours that could ultimately improve the quality of their sexual connection. These ideas are consistent with findings from the literature on partner regulation in which greater levels of directness, even if combined with negativity, may be more effective in promoting a partner to change undesired behaviours or characteristics underlying important relationship issues (McNulty & Russell, 2010; Overall et al., 2009).

In our work we have focused on how both partners' levels of sexual communal motivation are associated with sexual and relationship satisfaction, but future work should also consider whether correspondence between partners' sexual communal strength is associated with satisfaction and if, specifically, there might be additional benefits of "matching" between partners in sexual communal strength. In our research, we have tested statistical interactions between both partners' levels of sexual communal strength to test questions such as whether relational and sexual outcomes are even better when both partners are highly communal. While tests of these interactions have yielded null or inconsistent results, interactions are not the ideal approach for testing matching effects (e.g., Edwards, 2001). Recent advances in statistical analyses, such as response surface analysis (RSA; Humberg et al., 2018; Schönbrodt, 2016) can provide a powerful approach to testing matching effects and can enable researchers to determine whether and under what conditions correspondence between partners in sexual communal strength is associated with sexual and relationship satisfaction. It is possible that above and beyond associations between partners' sexual communal strength and sexual and relationship quality, matching on sexual communal strength between partners might also predict satisfaction. Although we typically find that lower sexual communal strength is associated with lower satisfaction, if both partners are low on sexual communal strength and perhaps both take an exchange perspective, they may be able to maintain relationship satisfaction. However, our recent work shows that greater matching between partners on sexual desire is not specifically associated with satisfaction above and beyond the effects of both partner's level of desire (Kim et al., 2020), so perhaps matching on sexual communal strength would not be associated with satisfaction and, instead, is an important factor that helps couples to maintain satisfaction even when they are mismatched in desire. Exploring the extent to which satisfaction in couples is impacted by discrepant patterns in partners' self-reported - as well as perceived - communal and exchange motives in the sexual domain remains a promising avenue for future work.

Conclusions

Although couples certainly face many challenges to maintaining their sexual connection over time, our research suggests that a communal approach to sexual need responsiveness can inform how couples can keep the spark alive, even during times when their sexual connection may be wavering, as well as how partners can most sensitively decline each other's advances and respond to sexual rejection. Maintaining desire and satisfaction, especially during challenging times in a relationship, can be far from easy, and likely requires partners to put in effort and work to be successful (Maxwell et al., 2017). Several ways that couples can put in this effort – reviewed in this article – involve trying to meet a partner's sexual needs even when those needs are different than one's own, declining a partner's advances with love and responsiveness, communicating understanding in the face of rejection, and accepting that there will be times when a partner is not in the mood for sex. A communal approach to sexuality highlights that when people are willing to put in this work, they are more likely to experience the rich rewards of a fulfiling, intimate sexual relationship.

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References

Ahlborg, T., Dahlöf, L. G., & Hallberg, L. R. M. (2005). Quality of the intimate and sexual relationship in first-time parents six months after delivery. Journal of Sex Research, 42(2), 167–174. http://doi.10.1080/00224490509552270

Balzarini, R. N., Muise, A., Dobson, K., Kohut, T., Raposo, S., & Campbell, L. (in press). The dilemma of discrepant sexual ideals and buffering effect of sexual communal strength. Journal of Personality and Social Psychology.



- Baumeister, R. F., & Bratslavsky, E. (1999). Passion, Intimacy, and Time: Passionate Love as a Function of Change in Intimacy. Personality and Social Psychology Review, 3, 49-67. doi:10.1207/s15327957pspr0301 3 1
- Baumeister, R. F., Catanese, K. R., & Vohs, K. D. (2001). Is there a gender difference in strength of sex drive? Theoretical views, conceptual distinctions, and a review of relevant evidence. Personality and Social Psychology Review, 5(3), 242-273. https:// doi.org/10.1207/S15327957PSPR0503_5
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. Psychological Bulletin, 117(3), 497-529. https://doi.org/10.1037/0033-2909.117.3.497
- Birnbaum, G. E., & Finkel, E. J. (2015). The magnetism that holds us together: Sexuality and relationship maintenance across relationship development. Current Opinion in Psychology, 1, 29-33. https://doi.org/10.1016/j.copsyc.2014. 11.009
- Blackhart, G. C., Nelson, B. C., Knowles, M. L., & Baumeister, R. F. (2009). Rejection elicits emotional reactions but neither causes immediate distress nor lowers self-esteem: A meta-analytic review of 192 studies on social exclusion. Personality and Social Psychology Review, 13(4), 269-309. https://doi.org/10. 1177/1088868309346065
- Blanchflower, D. G., & Oswald, A. J. (2004). Money, sex and happiness: An empirical study. Scandinavian Journal of Economics, 106(3), 393-415. https://doi.org/10. 1111/j.1467-9442.2004.00369.x
- Bradbury, T. N., & Fincham, F. D. (1990). Attributions in marriage: Review and critique. Psychological Bulletin, 107(1), 3-33. https://doi.org/10.1037/0033-2909. 107.1.3
- Burke, T. J., & Young, V. J. (2012). Sexual transformations and intimate behaviors in romantic relationships. Journal of Sex Research, 49(5), 454–463. https://doi.org/10. 1080/00224499.2011.569977
- Byers, E. S. (1996). How well does the traditional sexual script explain sexual coercion? Review of a program of research. Journal of Psychology & Human Sexuality, 8(1-2), 7-25. https://doi.org/10.1300/J056v08n01_02
- Byers, E. S., & Wang, A. (2004). Understanding sexuality in close relationship from the social exchange perspective. In A. W. J. H. Harvey & S. Sprecher (Eds.), The handbook of sexuality in close relationships (pp. 183-201). Lawrence Erlbaum.
- Byers, E. S., & Heinlein, L. H. (1989). Predicting initiations and refusals of sexual activities in married and cohabiting heterosexual couples. The Journal of Sex Research, 26(2), 210–231. http://doi.10.1080/00224498909551507
- Carswell, K., & Impett, E. A. (under review). What fuels passion: An integrative review of competing theories of romantic passion. Social and Personality Psychology Compass.
- Clark, M. S., & Mills, J. R. (2011). A theory of communal (and exchange) relationships. In P. A. M. Van Lange & A. W. Kruglanski (Eds.), Handbook of theories of social psychology (Vol. 2, pp. 232–250). Sage.
- Clark, M. S., & Aragón, O. R. (2013). Communal (and other) relationships: History, theory development, recent findings, and future directions. In J. A. Simpson & L. Campbell (Eds.), Oxford library of psychology. The Oxford handbook of close relationships (p. 255-280). Oxford University Press.
- Clark, M. S., Lemay, E. P., Graham, S. M., Pataki, S. P., & Finkel, E. J. (2010). Ways of giving benefits in marriage: Norm use, relationship satisfaction, and



- attachment-related variability. Psychological Science, 21(7), 944–951. http://doi.10. 1177/0956797610373882
- Davies, S., Katz, J., & Jackson, J. L. (1999). Sexual desire discrepancies: Effects on sexual and relationship satisfaction in heterosexual dating couples. Archives of Sexual Behavior, 28(6), 553-567. https://doi.org/10.1023/a:1018721417683
- Day, L., Muise, A., Joel, S., & Impett, E. A. (2015). To do it or not to do it? How communally motivated people navigate sexual interdependence dilemmas. Personality and Social Psychology Bulletin, 41(6), 791-804. https://doi.org/10. 1177/0146167215580129
- de Graaf, H., & Sandfort, T. G. (2004). Gender differences in affective responses to sexual rejection. Archives of Sexual Behavior, 33(4), 395-403. https://doi.org/10. 1023/B:ASEB.0000028892.63150.be
- Debrot, A., Impett, E. A., Muise, A., & Kim, J. (2019). Sex and touch dyadic daily diary study [Unpublished data]. UNC Dataverse, V1. https://doi.org/10.15139/S3/ TAI2FI
- Debrot, A., Meuwly, N., Muise, A., Impett, E. A., & Schoebi, D. (2017). More than just sex: Affection mediates the association between sexual activity and well-being. Personality and Social Psychology Bulletin, 43(3), 287-299. https://doi.org/10.1177/ 0146167216684124
- DeLamater, J. (2012). Sexual expression in later life: A review and synthesis. Journal of Sex Research, 49(2-3), 125-141. https://doi.org/10.1080/00224499.2011. 603168
- Diamond, L. M., & Huebner, D. M. (2012). Is good sex good for you? Rethinking sexuality and health. Social and Personality Psychology Compass, 6(1), 54-69. https://doi.org/10.1111/j.1751-9004.2011.00408.x
- Diener, E., & Seligman, M. E. P. (2002). Very happy people. Psychological Science, 13 (1), 81-84. http://doi.10.1111/1467-9280.00415
- Dobson, K., Zhu, J., Balzarini, R., & Campbell, L. (2020). Responses to sexual advances and satisfaction in romantic relationships: Is yes good and no bad? Social Psychological and Personality Science. Advance online publication, 11 (6), 801-811. https://doi.org/10.1177/1948550619888884
- Edwards, J. R. (2001). Ten difference score myths. Organizational Research Methods, 4(3), 265–287. https://doi.org/10.1177/109442810143005
- Eurostat. (2019). Retrieved July 4, 2019, from https://ec.europa.eu/eurostat/statisticsexplained/index.php?title=Marriage_and_divorce_statistics&oldid=73274
- Fritz, H. L., & Helgeson, V. S. (1998). Distinctions of unmitigated communion from communion: Self-neglect and overinvolvement with others. Journal of Personality and Social Psychology, 75(1), 121–140. https://doi.org/10.1037/0022–3514.75.1.121
- Geiss, S. K., & O'Leary, K. D. (1981). Therapist ratings of frequency and severity of marital problems: Implications for research. Journal of Marital and Family *Therapy*, 7(4), 515–520. http://doi.10.1111/j.1752-0606.1981.tb01407.x
- Goodboy, A. K., & Brann, M. (2010). Flirtation rejection strategies: Toward an understanding of communicative disinterest in flirting. The Qualitative Report, 15(2), 268–278. https://nsuworks.nova.edu/tqr/vol15/iss2/3
- Haupert, M. L., Gesselman, A. N., Moors, A. C., Fisher, H. E., & Garcia, J. R. (2017). Prevalence of experiences with consensual nonmonogamous relationships: Findings from two national samples of single Americans. Journal of Sex & Marital Therapy, 43(5), 424-440. https://doi.org/10.1080/0092623X.2016.1178675
- Hogue, J. V., Rosen, N. O., Bockaj, A., Impett, E. A., & Muise, A. (2019). Sexual communal motivation in couples coping with low sexual interest/arousal:



- Associations with sexual well-being and sexual goals. PLoS ONE, 14(7), e0219768. https://doi.org/10.1371/journal.pone.0219768
- Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social relationships and mortality risk: A meta-analytic review. PLoS Medicine, 7(7), e1000316. https:// doi.org/http://doi.10.1371/journal.pmed.1000316
- Humberg, S., Nestler, S., & Back, M. D. (2018). Response surface analysis in personality and social psychology: Checklist and clarifications for the case of congruence hypotheses. Social Psychological and Personality Science, 10(3), 409-419. https:// doi.org/10.1177/1948550618757600
- Impett, E. A., Muise, A., & Peragine, D. (2014). Sexuality in the context of relationships. In D. L. Tolman, L. M. Diamond, J. A. Bauermeister, W. H. George, J. G. Pfaus, & L. M. Ward (Eds.), APA handbook of sexuality and psychology (Vol. 1, pp. 269-315). American Psychological Association. http://doi.org/ 101037/14193-010
- Impett, E. A., Muise, A., & Harasymchuk, C. (2019). Giving in the bedroom: The costs and benefits of responding to a partner's sexual needs in daily life. Journal of Social and Personal Relationships, 36(8), 2455-2473. https://doi.org/10.1177/ 0265407518787349
- Impett, E. A., Muise, A., & Rosen, N. O. (2015). Is it good to be giving in the bedroom? A prosocial perspective on sexual health and well-being in romantic relationships. Current Sexual Health Reports, 7(3), 180-190. https://doi.org/10. 1007/s11930-015-0055-9
- Impett, E. A., & Peplau, L. A. (2003). Sexual compliance: Gender, motivational, and relationship perspectives. Journal of Sex Research, 40(1), 87–100. http://doi.10. 1080/00224490309552169
- Impett, E. A., & Sisson, N. (2020). Sexuality and partner change [Unpublished raw data]. University of Toronto Mississauga.
- Jouriles, E. N., Simpson Rowe, L., McDonald, R., & Kleinsasser, A. L. (2014). Women's expression of anger in response to unwanted sexual advances: Associations with sexual victimization. Psychology of Violence, 4(2), 170–183. https://doi.org/10.1037/a0033191
- Kashdan, T. B., Goodman, F. R., Stiksma, M., Milius, C. R., & McKnight, P. E. (2018). Sexuality leads to boosts in mood and meaning in life with no evidence for the reverse direction: A daily diary investigation. *Emotion*, 18(4), 563–576. http://doi. 10.1037/emo0000324
- Katz, J., & Tirone, V. (2009). Women's sexual compliance with male dating partners: Associations with investment in ideal womanhood and romantic well-being. Sex Roles, 60(5–6), 347–356. https://doi.org/10.1007/s11199-008-9566-4
- Kelly, M. B. (2015). Divorce cases in civil course, 2010/2011. Juristat. Statistics Canada catalogue no. 85-002-X. http://bit.ly/18tCSOo.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). Dyadic data analysis. Guilford
- Kim, J., Horne, R., Muise, A., & Impett, E. A. (2019). Development and validation of the responses to sexual rejection scale. Personality and Individual Differences, 144, 88-93. https://doi.org/10.1016/j.paid.2019.02.039
- Kim, J., Muise, A., Barranti, M., Mark, K., Rosen, N., Harasymchuk, C., & Impett, E. A. (2020). Are couples more satisfied when they match in sexual desire? New insights from response surface analyses. Social Psychological and Personality Science. Advance online publication. doi: 10.1177/1948550620926770.



- Kim, J. J., Muise, A., Sakaluk, J. K., & Impett, E. A. (2019). Sexual rejection scale. In R. Milhausen, J. K. Sakaluk, T. Fisher, C. Davis, & W. Yarber (Eds.), Handbook of sexuality-related measures (pp. 441-443). Taylor & Francis.
- Kim, J. J., Muise, A., & Impett, E. A. (2018). The relationship implications of rejecting a partner for sex kindly versus having sex reluctantly. Journal of Social and Personal Relationships, 35(4), 485-508. https://doi.org/10.1177/ 0265407517743084
- Kim, J. J., Muise, A., Sakaluk, J., Rosen, N., & Impett, E. A. (2020). When tonight is not the night: Sexual rejection and satisfaction in romantic relationships. Personality and Social Psychology Bulletin. Advance online publication. https:// doi.org/10.1177/0146167220907469
- Kogan, A., Impett, E. A., Oveis, C., Hui, B., Gordon, A., & Keltner, D. (2010). When giving feels good: The intrinsic benefits of sacrifice in romantic relationships for the communally motivated. Psychological Science, 21(12), 1918–1924. https://doi. org/10.1177/0956797610388815
- Lawrance, K., & Byers, E. S. (1995). Sexual satisfaction in long-term heterosexual relationships: The interpersonal exchange model of sexual satisfaction. Personal Relationships, 2(4), 267-285. https://doi.org/10.1111/j.1475-6811.1995.tb00092.x
- Le, B. M., Impett, E. A., Lemay, E. P., Muise, A., & Tskhay, K. O. (2018). Communal motivation and subjective well-being in interpersonal relationships: An integrative review and meta-analysis. Psychological Bulletin, 144, 1-25. doi: 10.1037/ bul0000133.
- Leary, M. R., Koch, E. J., & Hechenbleikner, N. R. (2001). Emotional responses to interpersonal rejection. In M. R. Leary (Ed.), Interpersonal rejection (pp. 145–166). Oxford University Press.
- Leary, M. R. (2001). Responses to social exclusion: Social anxiety, jealousy, loneliness, depression, and low self-esteem. Journal of Social and Clinical Psychology, 9(2), 221-229. https://doi.org/10.1521/jscp.1990.9.2.221
- Leary, M. R., Springer, C., Negel, L., Ansell, E., & Evans, K. (1998). The causes, phenomenology, and consequences of hurt feelings. Journal of Personality and Social Psychology, 74(5), 1225–1237. http://doi.10.1037/0022-3514.74.5.1225
- Mark, K. P. (2015). Sexual desire discrepancy. Current Sexual Health Reports, 7(3), 198-202. https://doi.org/10.1007/s11930-015-0057-7
- Maxwell, J. A., Muise, A., MacDonald, G., Day, L. C., Rosen, N. O., & Impett, E. A. (2017). How implicit theories of sexuality shape sexual and relationship well-being. Journal of Personality and Social Psychology, 112(2), 238-279. https:// doi.org/10.1037/pspi0000078
- McBride, H. L., & Kwee, J. L. (2017). Sex after baby: Women's sexual function in the postpartum period. Current Sexual Health Reports, 9(3), 142-149. https://doi.org/ 10.1007/s11930-017-0116-3
- McNulty, J. K., & Russell, V. M. (2010). When "negative" behaviors are positive: A contextual analysis of the long-term effects of problem-solving behaviors on changes in relationship satisfaction. Journal of Personality and Social Psychology, 98(4), 587-604. https://doi.org/10.1037/a0017479
- Metts, S., Cupach, W. R., & Imahori, T. T. (1992). Perceptions of sexual complianceresisting messages in three types of cross-sex relationships. Western Journal of Communication, 56(1), 1–17. https://doi.org/10.1080/10570319209374398
- Mikulincer, M., & Shaver, P. R. (2016). Attachment in adulthood: Structure, dynamics, and change (2nd ed.). Guilford Press.



- Miller, R. B., Yorgason, J. B., Sandberg, J. G., & White, M. B. (2003). Problems that couples bring to therapy: A view across the family life cycle. American Journal of Family Therapy, 31(5), 395-407. http://doi.10.1080/01926180390223950
- Mills, J., Clark, M. S., Ford, T. E., & Johnson, M. (2004). Measurement of communal strength. Personal Relationships, 11(2), 213-230. https://doi.org/10.1111/ j.1475-6811.2004.00079.x
- Muise, A., & Impett, E. A. (2019). Sexual communal strength scale. In R. Milhausen, J. K. Sakaluk, T. Fisher, C. Davis, & W. Yarber (Eds.), Handbook of sexualityrelated measures (pp. 443-445). Taylor & Francis.
- Muise, A., Bergeron, S., Impett, E. A., Delisle, I., & Rosen, N. O. (2018). Communal motivation in couples coping with vulvodynia: Sexual distress mediates associations with pain, depression, and anxiety. Journal of Psychosomatic Research, 106, 34–40. https://doi.org/10.1016/j.jpsychores.2018.01.006
- Muise, A., Bergeron, S., Impett, E. A., & Rosen, N. O. (2017). The costs and benefits of sexual communal motivation for couples coping with vulvodynia. Health Psychology, 36(8), 819–827. https://doi.org/10.1037/hea0000470
- Muise, A., & Impett, E. A. (2015). Good, giving and game: The relationship benefits of communal sexual responsiveness. Social Psychological and Personality Science, 6 (2), 164–172. https://doi.org/10.1177/1948550614553641
- Muise, A., & Impett, E. A. (2016). Applying theories of communal motivation to sexuality. Social and Personality Psychology Compass, 10(8), 455-467. https://doi. org/10.1111/spc3.12261
- Muise, A., Impett, E. A., Kogan, A., & Desmarais, S. (2013). Keeping the spark alive: Being motivated to meet a partner's sexual needs sustains sexual desire in longterm romantic relationships. Social Psychological and Personality Science, 4(3), 267–273. https://doi.org/10.1177/1948550612457185
- Muise, A., Kim, J. J., Impett, E. A., & Rosen, N. O. (2017). Understanding when a partner is not in the mood: Sexual communal motivation in couples transitioning to parenthood. Archives of Sexual Behavior, 46(7), 1993–2006. https://doi.org/ 10.1007/s10508-016-0920-2
- Muise, A., Laughton, A., Moors, A., & Impett, E. A. (2019). Sexual communal motivation and relationship satisfaction in consensually non-monogamous relationships. Journal of Social and Personal Relationships, 36(7), 1917-1938. https://doi.org/10.1177/0265407518774638
- Muise, A., Laughton, A., Moors, A., & Impett, E. A. (2019). Sexual communal motivation and relationship satisfaction in consensually non-monogamous relationships. Journal of Social and Personal Relationships, 36 (7), 1917-1938. https:// doi.org/10.1177/0265407518774638
- Muise, A., Schimmack, U., & Impett, E. A. (2016). Sexual frequency predicts greater well-being, but more is not always better. Social Psychological and Personality Science, 7(4), 295-302. http://doi.10.1177/1948550615616462
- Murray, S. L., Holmes, J. G., & Collins, N. L. (2006). Optimizing assurance: The risk regulation system in relationships. Psychological Bulletin, 132(5), 641-666. https:// doi.org/10.1037/0033-2909.132.5.641
- Nagurney, A. J. (2007). The effects of relationship stress and unmitigated communion on physical and mental health outcomes. Stress and Health, 23(4), 267-273. https://doi.org/10.1002/smi.1146
- O'Sullivan, L. F., & Byers, E. S. (1996). Gender differences in responses to discrepancies in desired level of sexual intimacy. Journal of Psychology & Human Sexuality, 8(1-2), 49-67. https://doi.org/10.1300/J056v08n01_04



- Overall, N. C., Fletcher, G. J. O., Simpson, J. A., & Sibley, C. G. (2009). Regulating partners in intimate relationships: The costs and benefits of different communication strategies. Journal of Personality and Social Psychology, 96(3), 620-639. https://doi.org/10.1037/a0012961
- Peplau, L. A. (2003). Human sexuality: How do men and women differ? Current Directions in Psychological Science, 12(2), 37-40. https://doi.org/10.1111/1467-8721.
- Pew Research Center. (2017). Retrieved July 4, 2019, from https://www.pewresearch. org/fact-tank/2017/09/14/as-u-s-marriage-rate-hovers-at-50-education-gap-inmarital-status-widens/
- Raposo, S., Impett, E. A., & Muise, A. (in press). Keeping things even in the bedroom: Attachment avoidance is associated with being more sexually exchange-oriented and less sexually communal. Archives of Sexual Behavior.
- Raposo, S., & Muise, A. (2019). Perceived partner sexual responsiveness buffers anxiously attached individuals from lower relationship and sexual quality in daily life [Manuscript submitted for publication].
- Rehman, U. S., Balan, D., Sutherland, S., & McNeil, J. (2019). Understanding barriers to sexual communication. Journal of Social and Personal Relationships, 36(9), 2605–2623. https://doi.org/10.1177/0265407518794900
- Rehman, U. S., Lizdek, I., Fallis, E. E., Sutherland, S., & Goodnight, J. A. (2017). How is sexual communication different from nonsexual communication? A moment-by-moment analysis of discussions between romantic partners. Archives of Sexual Behavior, 46(8), 2339-2352. http://doi.10.1007/s10508-017-1006-5
- Reis, H. T., Clark, M. S., & Holmes, J. G. (2004). Perceived partner responsiveness as an organizing construct in the study of intimacy and closeness. In D. J. Mashek & A. Aron (Eds.), Handbook of closeness and intimacy (pp. 201-225). Erlbaum. http://doi.10.1037/13486-002
- Reis, H. T. (2007). Steps toward the ripening of relationship science. Personal Relationships, 14(1), 1–23. https://doi.org/1350-4126=07
- Rosen, N. O., & Bergeron, S. (2019). Genito-pelvic pain through a dyadic lens: Moving toward an interpersonal emotion regulation model of women's sexual dysfunction. Annual Review of Sex Research, 56 (4-5), 440-461. https://doi.org/10. 1080/00224499.2018.1513987
- Rubin, J. D., Moors, A., Matsick, J. L., Ziegler, A., & Conley, T. D. (2014). On the margins: Consideing diversity among consensually non-monogamous relationships. Journal Fur Psychologie, 22 (1).
- Rusbult, C. E., & Van Lange, P. A. M. (2008). Why we need interdependence theory. Social and Personality Psychology Compass, 2(5), 2049-2070. https://doi.org/10. 1111/j.1751-9004.2008.00147.x
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. American Psychologist, 55(1), 68–78. https://doi.org/10.1037/0003-066X.55.1.68
- Sanford, K. (2003). Problem-solving conversations in marriage: Does it matter what topics couples discuss? Personal Relationships, 10(1), 97-112. http://doi.10.1111/ 1475-6811.00038
- Schmiedeberg, C., & Schröder, J. (2016). Does sexual satisfaction change with relationship duration? Archives of Sexual Behavior, 45(1), 99–107. http://doi.10. 1007/s10508-015-0587-0



- Schnarch, D., & Regas, S. (2012). The crucible differentiation scale: Assessing differentiation in human relationships. Journal of Marital and Family Therapy, 38(4), 639-652. https://doi.org/10.1111/j.1752-0606.2011.00259.x
- Schönbrodt, F. D. (2016). RSA: An R package for response surface analysis (version 0.9.10). https://cran.r-project.org/package=RSA
- Schwenk, G. C., Dawson, S. J., Muise, A., & Rosen, N. O. (2020). It's not us, it's parenthood. Comparing sexual well-being in new parents and community couples. Manuscript submitted for publication.
- Sprecher, S., & Sprecher. (1998). Social exchange theories and sexuality. Journal of Sex Research, 35(1), 32–43. https://doi.org/10.1080/00224499809551915
- Sprecher, S. (2002). Sexual satisfaction in premarital relationships: Associations with satisfaction, love, commitment, and stability. Journal of Sex Research, 39(3), 190–196. https://doi.org/10.1080/00224490209552141
- Struckman-Johnson, D., & Struckman-Johnson, C. (1991). Men's and women's acceptance of coercive sexual strategies varied by initiator gender and couple intimacy. Sex Roles, 25(11-12), 661-676. https://doi.org/10.1007/bf00289570
- Syme, M. L. (2014). The evolving concept of older adult sexual behavior and its benefits. Generations - Journal of the American Society on Aging, 38 (1), 35-41.
- Thibaut, J. W., & Kelley, H. H. (1959). The social psychology of groups. Wiley.
- Vannier, S. A., Adare, K. E., & Rosen, N. O. (2018). Is it me or you? First-time mothers' attributions for postpartum sexual concerns are associated with sexual and relationship satisfaction in the transition to parenthood. Journal of Social and Personal Relationships, 35(4), 577-599. https://doi.org/10.1177/ 0265407517743086
- Woolhouse, H., McDonald, E., & Brown, S. (2012). Women's experiences of sex and intimacy after childbirth: Making the adjustment to motherhood. Journal of Psychosomatic Obstetrics and Gynecology, 33(4), 185-190. http://doi.10.3109/ 0167482X.2012.720314
- Wright, N. O., Norton, D. L., & Matusek, J. A. (2010). Predicting verbal coercion following sexual refusal during a hookup: Diverging gender patterns. Sex Roles, 62 (9–10), 647–660. https://doi.org/10.1007/s11199-010-9763-9