No Longer in a ‘Dry Spell’:
The Developing Understanding of How Sex Influences Romantic Relationships

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No Longer in a ‘Dry Spell’:
The Developing Understanding of How Sex Influences Romantic Relationships

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Abstract

Sex is a defining feature of romantic relationships; yet, only recently has research into the implications of sexual processes for such relationships proliferated. We review this work to illustrate how considering the way in which sexual processes influence relationships can help bridge theoretical and empirical work outside and within relationship science. We begin by providing a novel organizational framework for considering how sexual processes influence relationships, illustrating how they can be a (a) direct predictor of relationship outcomes, (b) mechanism that explains important associations, and (c) moderator that alters relationship dynamics. We then situate these findings within a dual-process framework for understanding of how sex influences relationships and conclude by highlighting several open questions and methodological challenges that remain for future research. Our goal is to demonstrate how considering sexual functioning in light of a variety of theoretical perspectives adds to, and sometimes alters, what we know about relationship dynamics.

Keywords: Sex, Relationships, Sexuality, Marriage, Implicit attitudes, Dual-process models
Sex is a defining feature of romantic relationships (e.g., Schwartz & Young, 2009), and having a satisfying sexual relationship is strongly predictive of having a satisfying romantic relationship (e.g., McNulty, Wenner, & Fisher, 2016). Yet, historically theoretical and empirical attempts to understand relationships have tended to proceed along rather independently of research on sexual functioning (e.g., Diamond, 2013; Impett & Muise, 2018; Muise, Maxwell, & Impett, 2018). Only recently has research on sex in the context of relationships proliferated (see review by Muise, Kim, McNulty, & Impett, 2016). We believe this work enhances the theoretical and empirical work both within and outside the broad tradition of relationship science and thus we provide a review and theoretical framework to recap what researchers know about the role of sex in romantic relationships.

**Sex as a Predictor of Relationship Dynamics**

Several longitudinal studies indicate sex directly predicts relationship outcomes (e.g., Fallis, Rehman, Woody, & Purdon, 2016; McNulty et al., 2016; Yeh, Lorenz, Wickrama, Conger, & Elder, 2006). In what is arguably the most comprehensive of these studies, McNulty et al. (2016) used two longitudinal studies, each consisting of eight assessments spanning four years, to reveal a bidirectional association between marital and sexual satisfaction: higher sexual satisfaction at one timepoint predicted increased marital satisfaction 6-8 months later (see also Fallis et al., 2016; Yeh et al., 2006) and higher marital satisfaction at one timepoint predicted increased sexual satisfaction 6-8 months later. Recent research grounded in evolutionary perspectives sheds light on one way sexual satisfaction operates on relationship satisfaction. Drawing on two different longitudinal studies, each consisting of a daily diary, Meltzer et al. (2017) showed that each act of sex helps bond partners through a lingering “afterglow” of enhanced sexual satisfaction lasting two days on average. Crucially, the strength of this sexual
afterglow predicted relationship satisfaction six months later. These findings are consistent with Birnbaum’s (2018) functional model of sexual desire which posits that sex serves to promote and maintain attachment bonds between partners, as well as interdependence theory (Kelley et al., 1983) and its sexually-focused derivatives (e.g., Lawrance & Byers, 1995), which posit rewarding interactions serve to enhance relationship satisfaction. They also extend these perspectives by illustrating the rewarding aspects of some experiences, even discrete experiences like sex, may linger in meaningful ways.

**Sex as a Mechanism of Relationship Dynamics**

Likely due to its powerful direct effects, sex also helps explain the influence of other key predictors of relationship outcomes. Numerous theoretical perspectives, including interdependence theory (Kelley et al., 1983), the vulnerability-stress-adaptation model (Karney & Bradbury, 1995) and risk regulation theory (Murray, Holmes, Collins, 2006), highlight the role of behaviors in mediating effects of individual differences on relationship outcomes. Two of the most reliable individual difference predictors of low relationship satisfaction are neuroticism (see McNulty, 2013) and insecure attachment (see Mikulincer & Shaver, 2003), and sexual processes appear to partially account for effects of both variables. For example, Fisher and McNulty (2008) demonstrated the association between higher neuroticism and lower marital quality was mediated by lower sexual satisfaction and Birnbaum (2007) demonstrated similar effects for women high in attachment anxiety. Risk regulation theory (Murray et al., 2006) may offer some insights into how these links emerge. According to that theory, people high (versus low) in such vulnerabilities are less confident in themselves and their partner’s acceptance of them and thus less likely to take emotional risks that benefit the relationship. Sexuality is particularly risky in this regard (see Kim, Muise, & Impett, 2018), making sexual behaviors
critical from a risk regulation perspective. Indeed, Meltzer and McNulty (2010) demonstrated low body self-esteem in women accounted for almost 20% of the variance in their marital satisfaction, an effect explained by low sexual frequency and satisfaction. Taken together, these studies highlight the usefulness of considering sex as a mechanism of more proximal relationship dynamics.

Sex as a Moderator of Relationship Dynamics

Sex can also determine the strength of well-established findings within relationship science. Recent theoretical perspectives on the contextual nature of relationship processes (e.g., McNulty, 2016) highlight that the effects of various interpersonal processes vary across important moderators. Indeed, several studies demonstrate more frequent or satisfying sex can buffer people from the negative implications of the two reliable individual difference predictors of relationship outcomes mentioned earlier. Specifically, neuroticism (Russell & McNulty, 2011) and attachment insecurity (Little, McNulty, & Russell, 2010) were not associated with poorer relationship satisfaction among married individuals who reported relatively more frequent or satisfying sex. Other sexual processes can have similar effects (Burke & Young, 2012; Maxwell et al., 2017). For example, Maxwell et al. (2017) recently demonstrated people who feel more (versus less) sexually compatible to their partners are less likely to incur relational costs from believing sexual outcomes are fixed and immutable. This research suggests couples’ sexual relationships may be a useful target for relationship interventions (e.g., Muise, Boudreau, & Rosen, 2017).

Integration: Dual Process Sexual Evaluation Model

We offer the Dual-Process Sexual Evaluation Model (DPSEM) first described by Hicks, McNulty, Meltzer, and Olson (2018) as a way to integrate these findings. The Reinforcement-
Affect Model (RAM; Byrne & Clore, 1970) provides a starting place for understanding this model. According to the RAM, people become attracted to others through a conditioning process similar to what is today referred to as evaluative conditioning (see Jones, Olson, & Fazio, 2010); that is, people learn to like and dislike others by associating those others with the affect they experience with those others (see McNulty, Olson, Jones, & Acosta, 2017). In simpler terms, we come to like people who make us feel good, or who are present when we feel good. Applying this logic to the current discussion, sex (when good) is typically a reinforcing event that elicits positive affect, and this positive affect becomes associated with the sexual partner. Of course, not all sex is good, and thus unpleasant sex may have opposite effects.

Nevertheless, there is an important inconsistency between the RAM and the available evidence. Although the RAM suggests frequent (pleasant) sex should directly lead to more positive subjective evaluations of the relationship, sexual frequency does not reliably predict relationship satisfaction (see McNulty et al., 2016; Hicks, McNulty, Meltzer, & Olson, 2016; though see Brody, Costa, Klapilová, & Weiss, 2018). Dual-process perspectives of social cognition can help explain this unreliable association and thereby extend the RAM. According to dual-process perspectives, cognition involves two types of processes that are not always directly associated with one another — spontaneous, effortless, and automatic processes and deliberative, effortful, and controlled processes (see Sherman, Gawronski, & Trope, 2014). The DPSEM posits that how sex shapes relationships may involve both processes — automatic processes by which people associate their partners with affect from sex and controlled processes by which people make sense of those associations. In this way, the DPSEM is guided by the associative-propositional evaluation (APE) model (Gawronski & Bodenhausen, 2006), which elucidates why affective experiences may not always predict subjective judgments. Similar to the RAM, the
APE suggests people’s experiences with others, such as sex, directly and automatically shape the
valence of the associative evaluations involving those people that are automatically activated
upon subsequent encounters with those people. But different from the RAM, the APE notes these
automatic feelings are not always accepted as valid subjective evaluations, and hence may not be
reflected in self-reported judgments of relationship quality. Specifically, once associative
evaluations are activated, people may deliberate about their validity and accept or reject them as
valid based on other beliefs and desires that are simultaneously activated. For example, a
committed person having relatively mundane sex with a partner may form relatively less positive
evaluative associations involving that partner but reject those associations as a relevant source of
any subjective evaluations of the relationship. People’s beliefs about the importance of sex for
relationships are therefore important to understanding how sex may differentially shape
automatic versus deliberative evaluations.

Recent research is consistent with these ideas. For example, in addition to showing that
sexual frequency did not predict self-reported marital satisfaction, Hicks et al. (2016)
demonstrated that sexual frequency did predict more positive automatic feelings towards the
partner. Further, Hicks et al. (2018) demonstrated frequency of orgasm during different types of
sex was associated with automatic positive feelings towards one’s partner but, crucially, only
associated with self-reported marital satisfaction among women who believed that particular type
of sex was indeed important for relationships—other people presumably disregarded their
automatic associative evaluations from sex as a valid indicator of their relationship satisfaction.

This is not to imply that preexisting beliefs and motivations always win out over
automatic evaluative associations in shaping deliberative judgments of relationship quality;
sometimes automatic evaluations “leak through” to shape judgments even when they contradict
other beliefs and desires (McNulty, Olson, Meltzer & Shaffer, 2013). Another dual process model, Fazio’s (1990) *motivation and opportunity as determinants* (MODE) model, helps explain how this occurs. According to that model, people must have both the motivation *and* the opportunity (e.g., time, cognitive resources) to deliberate in order to override automatic feelings toward their partner. With respect to relationships, for example, stress can occupy available cognitive resources (see Buck & Neff, 2012), which may minimize people’s opportunity to deliberate and thereby allow automatic evaluations to influence judgments.

From this perspective, enhanced automatic evaluations of the partner may be a critical mechanism through which sexual processes promote relationships (see McNulty et al., 2016; Meltzer et al., 2017), perhaps particularly by motivating relationship persistence in the face of difficulty (see also Birnbaum, 2018). Whereas more frequent positive sexual experiences may enhance automatic partner attitudes and thereby initiate positive judgments of the relationship, even during times of stress, fewer and/or less positive sexual experiences may result in less positive automatic partner attitudes that lead to less positive judgments of relationship quality during stress by limiting their opportunity to override those attitudes. Such effects may partly explain how people with interpersonal vulnerabilities described earlier (e.g., high neuroticism, high attachment anxiety, and low body self-esteem) are at risk for relationship disruption. That is, there may be a cascade effect such that their vulnerability to less frequent positive sexual experiences leads them to develop less positive automatic partner attitudes and thus judge their relationships more harshly at times that they rely on their less positive automatic attitudes, such as during stress. At the same time, people with insecurities who do have more rewarding sex (such as more frequent satisfying sex, or more compatible sex) should develop automatic partner attitudes that allow them to reap higher relationship quality. Indeed, sex may play a particularly
unique role for insecure people who may experience fewer rewards from other aspects of their relationship (e.g. Mikulincer & Shaver, 2003) and thus particularly benefit from the positive associations with one’s partner that result from rewarding sexual experiences.

In sum, like the RAM, the DPSEM suggests one way sex shapes relationships is by infusing them with positive affect that becomes associated with the partner. But importantly, the DPSEM extends the RAM by suggesting that those automatic associations will not always be accepted as a valid source of subjective judgments of relationship quality. Although people who do not have the opportunity to freely deliberate (e.g., those under stress) should be more likely to rely on these automatic associations when forming subjective evaluations, people who do have that opportunity should be more likely to reject the influence of any automatic associations that are inconsistent with other preexisting beliefs. See Figure 1.

**Figure 1.** Overview of the Dual-Process Sexual Evaluation Model (DPSEM; as initially described in Hicks et al., 2018).
**Future Directions**

There is much to learn about sex in relationships. For example, it remains unclear how relationship evaluations influence evaluations of the sexual relationship, as shown in McNulty et al. (2016). According to the DPSEM, more satisfying relationships may infuse more positive affect into sexual experiences and the extent to which this occurs may be moderated by important factors, which may explain why evidence for this link is more mixed (see Fallis et al., 2016; Yeh et al., 2006). It is also unclear whether there are any unique ways sex influences relationships. To date, much of the research has focused on the overlap between sexual and relationship processes, such as by adapting interpersonal constructs (e.g., Maxwell et al., 2017), and even the DPSEM suggests sex may function similarly to other relationship reinforcing events that produce positive affect, such as sharing new experiences or non-sexual affection (experiences that increase emotional capital; e.g., Feeney & Lemay, 2012). Although it may be sex is particularly powerful simply because of its unique ability to produce positive and negative affect (e.g., Kim et al., 2018) that becomes associated with the partner, an alternate perspective is that sex operates *differently* from other relationship reinforcing events. Indeed, from an evolutionary perspective sex is unique because it is the sole relationship behavior that can lead directly to reproduction. Future research may benefit from examining these issues.

Future research may also benefit from considering several methodological issues. For example, when designing studies to capture daily sexual experiences, researchers should consider that the average frequency of sex within couples is once per week (Muise, Schimmack, & Impett, 2016) and the effects of sexual experiences can last approximately 48 hours (Meltzer et al., 2017). Additionally, researchers may benefit from using both implicit and self-report measures to explicate the automatic and controlled elements implied by the DPSEM (e.g., Hicks
et al., 2016; 2018) as well as from examining specific sexual processes, such as duration of sexual experience, specific sexual behaviors, or pornography use (Diamond, 2013; see also Impett & Muise, 2018). Finally, research may benefit from sampling from diverse types of relationships, such as same-sex and consensually non-monogamous relationships, as well as from relationships beyond the early years (see Diamond, 2013; Wood, Desmarais, Burleigh, & Milhausen, 2018).

Conclusion

In sum, there is a rapidly increasing body of evidence illustrating the pivotal role of sex to romantic relationships. Considering sexual functioning can add to, and sometimes alter, what we know about relationship dynamics. Although this brief review highlights some of what we have learned, we hope it suggests numerous new avenues to consider.
Notes

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**Recommended Readings**


