

Gratitude Increases the Motivation to Fulfill a Partner's Sexual Needs

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Abstract

Maintaining sexual satisfaction is a critical, yet challenging, aspect of most romantic relationships. Although prior research has established that sexual communal strength (SCS)—i.e., the extent to which people are motivated to be responsive to their partner's sexual needs—benefits romantic relationships, research has yet to identify factors that promote SCS. We predicted that gratitude would increase SCS because gratitude motivates partners to maintain close relationships. These predictions were supported in three studies with cross-sectional, longitudinal, and experimental methods. Specifically, experiencing and receiving expressions of gratitude were associated with greater SCS. These studies are the first to investigate the benefits of gratitude in the sexual domain and identify factors that promote SCS. Together, these results have important implications for relationship and sexual satisfaction in romantic relationships.

Keywords

sexual communal strength, gratitude, romantic relationships, sexuality

Maintaining sexual satisfaction is a critical, yet challenging, task for most romantic couples. Indeed, most people consider a satisfying sexual relationship to be a key aspect of romantic relationships (Impett et al., 2014), and sexual satisfaction is associated with greater relationship (Sprecher, 2002) and individual well-being (Laumann et al., 2006). Yet, most couples experience declines in sexual, and thus relational, satisfaction over time (McNulty et al., 2016). Thus, one key goal of relationship and sexuality research has been to identify how couples can maintain sexually satisfying relationships (see Impett & Muise, 2019).

Recent research suggests that sexual communal strength (SCS; Muise et al., 2013)—i.e., the motivation to meet a partner's sexual needs—may buffer couples from normative declines in sexual satisfaction. Indeed, SCS predicts greater sexual desire, sexual satisfaction, and relationship satisfaction (Day et al., 2015; Muise & Impett, 2015; Muise et al., 2017). Although the benefits of SCS have been established, research has yet to identify factors that promote SCS. Thus, the goal of the current research is to examine whether gratitude—an emotion that motivates people to maintain close relationships (Algoe et al., 2008)—also motivates people to meet their partner's sexual needs.

The Relational Benefits of SCS

SCS refers to the extent that people are motivated to meet their partner's sexual needs. Importantly, people high in SCS tend to be motivated to meet those needs because they genuinely want

to please their partner (Day et al., 2015; Muise & Impett, 2015), not because they want to avoid conflict (Muise et al., 2013), which tends to decrease relationship satisfaction (Impett et al., 2005). Further, people high in SCS do not fulfill their partner's needs to the exclusion of their own needs (Impett et al., 2019) and do not expect immediate reciprocation (Day et al., 2015). Similarly, SCS does not stem from sexual coercion, which is nearly always associated with negative outcomes (O'Sullivan et al., 1998).

Research has consistently demonstrated the relational benefits of SCS (Day et al., 2015; Muise et al., 2013). For example, Muise and Impett (2015) revealed that SCS was associated with more stable relationship satisfaction and commitment over time. Similarly, SCS was associated with both partners' daily sexual and relationship satisfaction, even on days when partners had different sexual interests (Day et al., 2015). These findings are consistent with several theoretical perspectives, including attachment theory (Brennan & Shaver, 1995), interdependence theory (Reis, 2014; Rusbult et al., 1994), the ideal standards model (Fletcher & Simpson, 2000), and transactive

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goal dynamics theory (Fitzsimons et al., 2015), which all suggest that relationships are strengthened when partners meet each other's needs (see Baker et al., 2013).

Gratitude May Increase SCS

Despite the importance of meeting partners' sexual needs, research has yet to identify factors that increase the motivation to do so. One such factor may be gratitude. Gratitude is a positively valenced emotion that arises in response to the recognition that another person has been beneficial or valuable to them (Algoe et al., 2008; McCullough et al., 2001; Wood et al., 2008). A growing body of research has revealed that gratitude is associated with greater intrapersonal (e.g., mood, optimism; Hill & Allemand, 2011; McCullough et al., 2002) and relational (e.g., prosocial behavior, relationship satisfaction; Algoe et al., 2008) outcomes.

There is reason to expect that experiencing and receiving gratitude will increase SCS. Regarding *experiencing* gratitude, the find-remind-and-bind theory of gratitude suggests that gratitude functions to remind people of their partner's value and subsequently increase the motivation to maintain that relationship (Algoe et al., 2008). Indeed, people who are grateful for others' selfless actions tend to be more willing to help those others with a costly task (i.e., completing a taxing survey) compared to those who feel less grateful (Bartlett & DeSteno, 2006). Further, people often express their gratitude to their partners (C. L. Gordon et al., 2011), and such expressions of gratitude also increase the motivation to maintain their relationships with them (Lambert et al., 2010).

Receiving expressions of gratitude may similarly increase recipients' SCS. In particular, feeling appreciated tends to be a rewarding experience (Algoe et al., 2016) because it fulfills self-enhancement goals (Sedikides & Gregg, 2008) and reduces relational uncertainty (Algoe, 2012). Given that people tend to like others who create rewarding experiences (Weinstein & Ryan, 2010), and that people tend to be more motivated to meet others' needs to the extent that they like them (Impett et al., 2003; Landis et al., 2014), receiving expressions of gratitude should increase the motivation to fulfill a partner's needs. Indeed, people who are thanked for their help tend to be more motivated to continue their relationship with (Williams & Bartlett, 2015), and offer more assistance to (Grant & Gino, 2010), the person they helped compared to those who are not thanked.

Although past theory and research suggest that gratitude should increase the general desire to maintain a relationship, there is reason to expect that gratitude would have a particularly important role in increasing the motivation to meet a partner's *sexual* needs (i.e., SCS) because of the importance that sex holds within romantic relationships. Unlike other personal or relational needs (e.g., companionship, esteem) that can be fulfilled by multiple people, sexual needs are typically expected to be fulfilled only by one's romantic partner (Rubin et al., 2014). Thus, people pay close attention to whether their partners are meeting their sexual needs (Byers, 2005) and

whether they are meeting their partners' sexual needs (Fisher et al., 2015). Given the importance of sexual fulfillment for maintaining satisfying romantic relationships (Impett et al., 2014; Sprecher, 2002), and given that people who are committed to maintaining their relationships prioritize fulfilling needs that their partners consider to be important (Stanley & Markman, 1992), intimates experiencing and receiving gratitude, who are thus motivated to maintain their relationships, should be especially motivated to meet their partner's sexual needs. Consistent with this idea, prior research has demonstrated that people welcome their partner's sexual advances more to the extent that they feel appreciated by those partners (Graham et al., 2004).

Hypotheses and Overview of the Current Studies

Although past research has established the importance of SCS, there is a need to identify factors that promote SCS. Thus, we conducted three studies to examine the implications of gratitude for SCS. A cross-sectional Pilot Study assessed participants' experiences and reception of gratitude, as well as their SCS. Study 1 was a dyadic, longitudinal study in which couples completed assessments of SCS and gratitude at three time points. Study 2 was an experiment in which participants in romantic relationships completed tasks that either did or did not enhance gratitude and reported their SCS. Across these studies, we predicted that both experiencing and receiving gratitude would be associated with greater SCS.

Pilot Study

Method

Participants

Participants were 249 individuals who were recruited using the Mechanical Turk service on Amazon.com (MTurk). This study was conducted during a period of elevated nonhuman and/or nonserious respondents on MTurk (Chmielewski & Kucker, 2019); thus, 64 participants were excluded for failing attention checks. The remaining 185 participants (75 male, 108 female, 2 trans male) had a mean age of 33.7 years ($SD = 9.6$) and were required to be in a romantic relationship for at least 3 months ($M = 24.2$ months, $SD = 38.5$ months). One-hundred thirty-three (71.9%) participants identified as Caucasian, 23 (12.4%) identified as African American, 15 (8.1%) identified as Asian, 7 (3.8%) identified as Hispanic, and 7 (3.8%) identified as other or two or more ethnicities.

Procedure

Participants completed all procedures online using Qualtrics survey software. Participants completed questionnaires assessing their SCS, experiences of gratitude toward their partner, and expressions of gratitude received from their partner.

Finally, participants were debriefed and received US\$0.50 for completing the study.

Measures

All measures can be found in the Online Supplemental Materials (OSM).

SCS. Participants completed the 6-item SCS measure (Muisse et al., 2013) to assess their SCS (e.g., “How high a priority for you is meeting the sexual needs of your partner?”) using a 11-point scale (1 = *not at all*, 11 = *extremely*).¹ Internal consistency was acceptable ($\alpha = .67$).

Gratitude. Participants completed the Appreciation in Relationships Scale (AIR; A. M. Gordon et al., 2012). The AIR consists of two subscales: The first contains nine questions that assess experiences of gratitude toward the partner (e.g., “I appreciate my partner”) and the second contains seven questions that assess expressions of gratitude received from the partner (e.g., “My partner often tells me the things that she or he really likes about me”). Participants responded to all items using a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*). Items within both subscales were summed to create separate indices of experienced and received gratitude. Internal consistency was high ($\alpha_{\text{experienced}} = .84$; $\alpha_{\text{received}} = .86$).

Results

Preliminary analyses (e.g., testing for gender differences) can be found in the OSM. Consistent with predictions, bivariate correlations revealed that SCS was positively associated with both experiencing gratitude ($r = .53$, $p < .001$) and receiving gratitude ($r = .49$, $p < .001$).

Supplemental Analyses

Supplemental analyses were conducted to further understand the association between gratitude and SCS. First, we examined whether SCS remained positively associated with both experiencing gratitude and receiving gratitude when simultaneously regressed onto both. Results indicated that both experiencing gratitude, $B = 0.39$, $SE = 0.08$, $t(182) = 4.69$, $p < .001$, $r = .57$, 95% confidence interval (CI) [0.23, 0.55], and receiving gratitude, $B = 0.29$, $SE = 0.09$, $t(182) = 3.11$, $p = .002$, $r = .57$, 95% CI [0.11, 0.47], were significantly associated with greater SCS when entered simultaneously. Second, we examined whether gratitude remained positively associated with SCS, controlling for communal strength (CS; see OSM for measure information). Results indicated that both experiencing gratitude, $B = 0.25$, $SE = 0.07$, $t(182) = 3.43$, $p = .001$, $r = .25$, 95% CI [0.11, 0.39], and receiving gratitude, $B = 0.34$, $SE = 0.07$, $t(182) = 5.03$, $p < .001$, $r = .35$, 95% CI [0.20, 0.47], were significantly associated with greater SCS, controlling for CS.

Discussion

The Pilot Study provides initial evidence that experiencing and receiving gratitude were associated with greater SCS. However, this study is limited due to the cross-sectional design that precludes conclusions about the temporal order of this association. Study 1 addressed this issue.

Study 1

Study 1 used a longitudinal, dyadic sample to test whether gratitude is positively associated with changes in SCS. To this end, both members of romantic couples reported the extent to which they experienced and received gratitude and their SCS at three different time points. We predicted that partners' reports of both experiencing and receiving gratitude would be positively associated with changes in SCS.

Method

Participants

Participants were 118 heterosexual couples ($n = 236$) recruited from the United States through Craigslist who participated in a broader study of romantic relationships. Participants had a mean age of 31.6 years ($SD = 10.34$) and had been in their current relationship from 4 months to 30 years ($M = 4.9$ years, $SD = 5.3$ years). One-hundred thirty (54.9%) participants identified as White or European, 35 (14.6%) as African American, 18 (7.4%) as Asian, 18 (7.5%) as Hispanic, 7 (2.9%) as Native American, 2 (0.8%) as Indian, and 26 (11%) as other.

Procedure

Couples were individually e-mailed a link to a 30-min online survey and were instructed to complete the questionnaires independent from their partner. At Baseline (Time 1), both members of the couple completed measures of SCS and gratitude. Because of broader goals of the study, participants completed a daily diary for the following 21 days that assessed variables unrelated to the current predictions. At the end of the 21 days (Time 2), and 3 months after Baseline (Time 3), participants again reported their SCS and gratitude. One-hundred sixty-six (70.3%) participants completed Time 2, and 120 (50.8%) participants completed Time 3. Each partner was paid up to US\$50 for completing the broader study.

Measures

All measures can be found in the OSM.

SCS. Participants completed the SCS measure (Muisse et al., 2013) described in the Pilot Study. Internal consistency was acceptable ($\alpha = .69$).

Gratitude. Participants completed the AIR (A. M. Gordon et al., 2012) described in the Pilot Study. Internal consistency was high ($\alpha_{\text{experienced}} = .85$, $\alpha_{\text{received}} = .91$).

Table 1. Descriptive Statistics and Correlations in Study 1.

Variable	1	2	3	M	SD
Time 1					
(1) SCS	.11	.14*	.24**	5.56	0.94
(2) Gratitude experienced	.33**	.40**	.65**	5.24	1.00
(3) Gratitude received	.20**	.52**	.46**	5.15	1.38
Time 2					
(1) SCS	.17*	.28**	.26**	5.61	1.02
(2) Gratitude experienced	.41**	.49**	.60**	5.26	0.99
(3) Gratitude received	.30**	.65**	.49**	5.16	1.27
Time 3					
(1) SCS	.33**	.23*	.25*	5.43	1.05
(2) Gratitude experienced	.49**	.34**	.50**	5.32	1.02
(3) Gratitude received	.33**	.70**	.42**	5.02	1.41

Note. Intrapersonal correlations are presented below the diagonal, interpersonal correlations appear on and above the diagonal. SCS = sexual communal strength.

* $p < .05$. ** $p < .01$.

Results

Descriptive statistics and correlations among the variables are presented in Table 1. At baseline, there were no significant differences in SCS, $B = -0.06$, $SE = 0.12$, $t(235) = -0.47$, $p = .642$, $r = -.03$, 95% CI $[-0.30, 0.18]$, experienced gratitude, $B = 0.14$, $SE = 0.13$, $t(235) = 1.20$, $p = .271$, $r = .08$, 95% CI $[-0.12, 0.40]$, or received gratitude, $B = 0.26$, $SE = 0.18$, $t(235) = 1.46$, $p = .145$, $r = .09$, 95% CI $[-0.09, 0.61]$, among participants who completed all three time points compared to those who did not. Preliminary analyses (e.g., testing for gender differences) can be found in the OSM.

Gratitude and Changes in SCS

We first examined whether gratitude was associated with changes in SCS from each time point to the next by estimating two-level cross models with the HLM Version 7.01 computer program (Raudenbush et al., 2013), in which persons were nested within dyads, and persons and days are crossed, given that both partners' reports were provided on the same days (Kenny et al., 2006). In these models, SCS scores at the next assessment were regressed onto either experienced gratitude or received gratitude at the previous assessment, controlling for SCS at the previous assessment. All predictors were group (i.e., within-person) centered; thus, results represent changes in SCS based on whether participants reported more or less gratitude than their individual average. Given that data were distinguishable by gender, separate effects were simultaneously estimated for men and women, yet the effects for men and women were constrained together to yield average estimates.

Results indicated that changes in participants' SCS were positively associated with their reports of their experienced gratitude, $B = 0.30$, $SE = 0.11$, $t(115) = 2.75$, $p = .007$, $r = .25$, 95% CI $[0.08, 0.52]$, and their reports of their received gratitude, $B = 0.26$, $SE = 0.07$, $t(115) = 3.49$, $p < .001$, $r = .31$,

Table 2. Regression Analyses of Gratitude Predicting Sexual Communal Strength, Controlling for Covariates in Study 1.

Covariate	B	SE	t	p	r	95% CI
Communal motivation						
Gratitude experienced	.28	.12	2.31	.023	.21	[.04, .52]
Gratitude received	.25	.09	2.85	.005	.26	[.07, .43]
Relationship satisfaction						
Gratitude experienced	.28	.13	2.09	.039	.19	[.02, .54]
Gratitude received	.25	.09	2.76	.007	.25	[.07, .43]
Commitment						
Gratitude experienced	.25	.12	2.10	.038	.19	[.01, .49]
Gratitude received	.23	.08	2.76	.007	.25	[.07, .39]
Intimacy						
Gratitude experienced	.26	.12	2.10	.038	.19	[.02, .50]
Gratitude received	.24	.09	2.65	.009	.24	[.06, .42]
Sexual desire						
Gratitude experienced	.32	.12	2.57	.012	.23	[.08, .56]
Gratitude received	.29	.09	3.34	.001	.30	[.11, .47]

Note. $df = 113$.

95% CI $[0.12, 0.40]$. Further, analyses that employed an Actor-Partner Interdependence Model (APIM; Kenny et al., 2006) approach revealed that changes in participants' SCS remained significantly associated with their reports of their received gratitude, $B = 0.22$, $SE = 0.07$, $t(113) = 2.99$, $p = .003$, $r = .27$, 95% CI $[0.08, 0.36]$, yet were no longer associated with their reports of their experienced gratitude, $B = 0.23$, $SE = 0.12$, $t(113) = 1.93$, $p = .056$, $r = .18$, 95% CI $[-0.01, 0.47]$, controlling for their partner's reports of gratitude. Results examining the independent effects of those partner's reports can be found in the OSM.

Supplemental Analyses

Multiple supplemental analyses were conducted to further understand the association between gratitude and SCS. First, we examined whether both experiencing and receiving gratitude were associated with changes in SCS when SCS was simultaneously regressed onto both gratitude variables. Results indicated that changes in participants' own SCS were positively associated with their reports of their received gratitude, $B = 0.20$, $SE = 0.09$, $t(113) = 2.31$, $p = .023$, $r = .21$, 95% CI $[0.02, 0.38]$, yet were not associated with their reports of their experienced gratitude, $B = 0.17$, $SE = 0.13$, $t(113) = 1.34$, $p = .182$, $r = .13$, 95% CI $[-0.09, 0.43]$, when SCS was simultaneously regressed onto both. Second, we examined whether the effects of gratitude were independent from other similar variables (see OSM for information about these measures). Results are presented in Table 2 and revealed a similar pattern of results.

Discussion

Consistent with our predictions, participants' experiences of gratitude, and the expressions of gratitude they received, were positively associated with changes in SCS from one assessment

to the next. Nevertheless, the previous studies were correlational and thus preclude conclusions about the causal nature of these associations. Study 2 addressed this issue.

Study 2

Study 2 was a preregistered experiment intended to provide causal evidence that gratitude increases SCS (osf.io/myq9p). Participants in romantic relationships completed two tasks designed to increase their own gratitude, increase their perception of their partner's gratitude, or not increase perceptions of gratitude. Participants then completed manipulation checks and reported their SCS. We predicted that SCS would be greater among participants in either of the two gratitude conditions compared to participants in either of the two different control conditions.

Method

Participants

Participants were 285 individuals who were recruited using MTurk. A sample size of at least 200 participants was obtained because an a priori power analysis based on previously obtained effect sizes from a different manipulation of gratitude ($r = .24$; Baker, 2020) indicated that the power to detect the association between the gratitude manipulation and interpersonal evaluations was .84 with 200 participants at an α of .05. This study was conducted during a period of elevated nonhuman and/or nonserious respondents on MTurk (Chmielewski & Kucker, 2019); thus, 82 participants were excluded for not following directions or failing attention checks. The remaining 203 participants (78 men, 124 women, and 1 other) had a mean age of 37.5 years ($SD = 10.9$). Participants were required to be in a romantic relationship for at least 3 months ($M = 9.8$ years, $SD = 9.6$ years). One-hundred sixty-two (79.8%) participants identified as Caucasian, 15 (7.4%) as Asian, 13 (6.4%) as African American, 9 (4.4%) as Hispanic, and 4 (2%) as two or more ethnicities.

Procedure

Participants completed all procedures online using Qualtrics survey software. Participants were randomly assigned to one of four conditions and then completed two separate writing tasks developed for this study. For the first writing task, all participants were asked to write a letter about a recent experience. Participants in the *experiencing gratitude condition* were asked to describe the most recent moment they experienced gratitude toward their romantic partner. Participants in the *receiving gratitude condition* were asked to describe the most recent moment they received gratitude from their romantic partner. Two control conditions were included to yield either a positive experience independent from their romantic partner or a neutral experience involving their romantic partner to ensure that any potential differences between participants in the gratitude and control conditions were specific to gratitude and not the result

Table 3. Descriptive Statistics and Correlations in Study 2.

Variable	1	2	M	SD
(1) SCS			8.18	2.32
(2) Experiencing gratitude	.47**		7.20	2.36
(3) Receiving gratitude	.41**	.51**	6.78	2.62

Note. SCS = sexual communal strength.

* $p < .05$. ** $p < .01$.

of experiencing general positive affect or thinking generally about one's romantic partner. Thus, participants in the *positive affect control condition* were asked to describe their most recent enjoyable experience that did not involve their romantic partner. Finally, participants in the *partner control condition* were asked to describe the most recent experience that happened to their romantic partner that did not involve themselves.

Given that the effectiveness of this manipulation had not yet been established, all participants were instructed to complete a second writing task intended to similarly influence gratitude to further strengthen the manipulation. For this second task, participants in the *experiencing gratitude condition* were asked to list and describe two things that they are most grateful for about their romantic partner. Participants in the *receiving gratitude condition* were asked to list and describe two things that they feel their romantic partner is most grateful for about themselves. Participants in the *positive affect control condition* were asked to list and describe two activities that they enjoy doing without their partner. Finally, participants in the *partner control condition* were asked to list and describe two activities that their partner enjoys doing that do not involve themselves. After completing both tasks, all participants completed manipulation checks and reported their SCS. Participants were debriefed and received US\$0.50 for completing the study.

Measures

All measures can be found in the OSM.

Manipulation check. To assess the effectiveness of the manipulations, participants responded to two face-valid items ("As of right now, I feel appreciative for my partner," ". . . my partner makes me feel appreciated"), along with 18 other behaviors intended to hide the purpose of the manipulation check, using a 9-point scale (1 = *do not agree at all*, 9 = *agree completely*).

SCS. Participants completed the previously described SCS measure (Muisse et al., 2013).¹ Internal consistency was high ($\alpha = .89$).

Results

Descriptive statistics and bivariate correlations are shown in Table 3. Preliminary analyses (e.g., testing for gender differences) can be found in the OSM. Confirming the effectiveness of the manipulations, participants in the four conditions differed in the extent to which they reported experiencing

Table 4. Post Hoc Analyses Comparing Conditions in Sexual Communal Strength, Controlling for Covariates in Study 2.

Covariate	Experiencing Gratitude Versus Positive Affect Control	Experiencing Gratitude Versus Partner Control	Receiving Gratitude Versus Positive Affect Control	Receiving Gratitude Versus Partner Control
	<i>p</i> [95% CI]			
Communal motivation	0.004 [0.32, 1.68]	0.166 [-0.22, 1.28]	<0.001 [0.81, 2.28]	0.009 [0.27, 1.87]
Relationship satisfaction	0.006 [0.30, 1.75]	0.008 [0.27, 1.84]	0.009 [0.28, 1.93]	0.010 [0.28, 2.00]
Commitment	0.009 [0.25, 1.67]	0.086 [-0.10, 1.45]	<0.001 [0.91, 2.43]	0.001 [0.57, 2.21]
Intimacy	0.005 [0.31, 1.75]	0.006 [0.33, 1.88]	<0.001 [0.59, 2.18]	0.001 [0.63, 2.29]
Positive affect	0.003 [0.41, 1.97]	0.026 [0.12, 1.81]	<0.001 [0.81, 2.53]	0.002 [0.53, 2.36]

gratitude for, $F(3, 199) = 11.61, p < .001, \eta^2 = .175$, and receiving gratitude from, $F(3, 199) = 12.36, p < .001, \eta^2 = .186$, their partner. More specifically, those in the experiencing gratitude condition ($M = 8.48, SD = 0.91$) reported experiencing more gratitude for their partners than did those in the receiving gratitude condition ($M = 7.29, SD = 2.36, p = .006, 95\% \text{ CI } [0.34, 2.05]$), the positive affect control condition ($M = 6.30, SD = 2.66, p < .001, 95\% \text{ CI } [1.38, 2.99]$), and the partner control condition ($M = 6.46, SD = 2.59, p < .001, 95\% \text{ CI } [1.14, 2.90]$). In contrast, those in the receiving gratitude condition ($M = 8.51, SD = 0.79$) reported receiving more gratitude from their partners than did those in the experiencing gratitude condition ($M = 6.90, SD = 2.42, p = .001, 95\% \text{ CI } [0.67, 2.55]$), the positive affect control condition ($M = 5.67, SD = 2.95, p < .001, 95\% \text{ CI } [1.89, 3.80]$), and the partner control condition, ($M = 6.27, SD = 2.77, p < .001, 95\% \text{ CI } [1.21, 3.27]$).

Gratitude and SCS

Supporting our prediction that gratitude increases SCS, a one-way analysis of variance revealed significant differences in SCS between participants in the experiencing gratitude condition ($M = 8.71, SD = 1.97$), receiving gratitude condition ($M = 9.35, SD = 1.71$), positive affect control condition ($M = 7.21, SD = 2.51$), and partner control condition ($M = 7.50, SD = 2.36$), $F(3, 199) = 10.74, p < .001, \eta^2 = .139$. Fisher's least significant difference (LSD) post hoc tests revealed no significant differences between the experiencing gratitude and receiving gratitude conditions ($p = .134, 95\% \text{ CI } [-8.91, 1.20]$); however, those in the experiencing gratitude condition reported greater SCS than did those in the positive affect control condition ($p < .001, 95\% \text{ CI } [4.25, 13.73]$) and partner control condition ($p = .006, 95\% \text{ CI } [2.07, 12.45]$), and those in the receiving gratitude condition reported greater SCS than did those in the positive affect control condition ($p < .001, 95\% \text{ CI } [7.73, 17.95]$) and partner control condition ($p < .001, 95\% \text{ CI } [5.58, 16.65]$).

Supplemental Analyses

Multiple supplemental analyses were conducted to further understand the relationship between experiencing and receiving gratitude and SCS. Specifically, we examined whether the

effects of gratitude were independent from other similar variables (see OSM for information about these measures). Results revealed significant differences in SCS between the conditions after controlling for general communal motivation, $F(3, 198) = 6.27, p < .001, \eta^2 = .383$, relationship satisfaction, $F(3, 198) = 4.64, p = .004, \eta^2 = .301$, commitment, $F(3, 198) = 7.10, p < .001, \eta^2 = .335$, intimacy, $F(3, 198) = 6.52, p < .001, \eta^2 = .311$, and positive affect, $F(3, 198) = 6.38, p < .001, \eta^2 = .199$. Fisher's LSD post hoc tests are presented in Table 4.

General Discussion

Although past research has established that people who are motivated to meet their partner's sexual needs (i.e., high in SCS) tend to experience greater sexual and relationship satisfaction (Day et al., 2015; Muise et al., 2013, 2017; Muise & Impett, 2015), research has yet to identify factors that promote SCS. The present studies aimed to fill this gap by examining whether both experiencing and receiving gratitude promote SCS in romantic relationships. The Pilot Study provided initial evidence that participants' tendencies to experience and receive gratitude were positively associated with SCS. Study 1 was a dyadic, longitudinal study that revealed that participants' experienced and received gratitude were positively associated with changes in SCS from one assessment to the next. Study 2 was an experiment that revealed that participants who were randomly assigned to either experience gratitude for or perceive gratitude from their romantic partner reported greater SCS than did participants in the control conditions.

Implications and Future Directions

These findings have important implications and suggest several directions for future research. First, these studies join a growing body of literature that highlights the benefits of gratitude (Algoe et al., 2010; Hill & Allemand, 2011; Kashdan et al., 2018). In particular, contemporary theory (Algoe et al., 2008; McCullough et al., 2001) and research (A. M. Gordon et al., 2012; Grant & Gino, 2010; Lambert & Fincham, 2011) suggest that gratitude functions to motivate people to maintain relationships with valuable others. The current studies extend this growing body of literature to the sexual domain by revealing that gratitude similarly motivates people to meet their partner's sexual needs, often above and beyond their general motivation

to meet a partner's needs, which is one important way that couples maintain satisfying relationships (Impett et al., 2014).

Second, future research may benefit by examining the implications of gratitude for other sexual outcomes such as sexual self-disclosure. Indeed, past research has revealed that people tend to feel more comfortable disclosing their emotions and concerns to the extent that they feel and receive expressions of gratitude (Collins & Miller, 1994; Lambert & Fincham, 2011). Gratitude may similarly extend to the domain of sexual communication. If so, given that couples often hesitate to disclose their sexual needs and preferences (Byers & Demmons, 1999), ultimately decreasing sexual satisfaction and impairing sexual functioning (Mallory et al., 2019), gratitude may not only increase the motivation to meet a partner's sexual needs but may also increase awareness about, and thus ability to fulfill, those needs by increasing partners' willingness to disclose them.

Third, the present findings can be applied to therapeutic interventions intended to improve sexual satisfaction. Given that declines in sexual satisfaction strongly predict declines in relationship satisfaction (McNulty et al., 2016), practitioners have often sought to identify ways in which couples can maintain, or even improve, sexual satisfaction (for review, see McCarthy & Wald, 2012). The current results suggest that gratitude may be a promising method for achieving that goal. Indeed, practitioners have already begun to incorporate gratitude into several therapeutic techniques (Kerr et al., 2015; Seligman et al., 2005). Although the benefits of these interventions may be due to numerous factors, such as increased relationship connection (Algoe et al., 2010; Kashdan et al., 2018), they may be at least partially due to increased SCS and sexual satisfaction.

Strengths and Limitations

Several limitations of the current research should be addressed. First, although we expected that gratitude would have a particularly important influence on the motivation to meet a partner's sexual needs because of the importance sex holds within romantic relationships (Impett et al., 2014; Sprecher, 2002), we did not assess whether these results emerged due to the importance that participants placed on sex. Future research might benefit from examining whether the implications of gratitude are stronger among people who view sex as highly important for relationship maintenance. Second, past research (A. M. Gordon et al., 2012; Joel et al., 2013) suggests that feeling appreciated and valued by a partner promotes one's own feelings of gratitude, ultimately promoting relationship maintenance. Although we found a similar pattern of results in Study 2, we did not find that receiving gratitude predicted changes in experiencing gratitude in Study 1 (see OSM); future research should clarify the causal relationship between receiving and experiencing gratitude. Third, the current studies assessed (Pilot Study, Study 1) and manipulated (Study 2) gratitude broadly and did not distinguish between different types of gratitude such as benefit-triggered gratitude (i.e., gratitude in

response to a specific benefit provided) and more generalized appreciation (i.e., a broader appreciation for the value of a partner). Indeed, past research (Lambert et al., 2009) has revealed that the different varieties of gratitude may have unique implications for emotions and perceptions of experiences. Thus, future research may benefit by examining whether different types of gratitude uniquely affect SCS.

Nevertheless, several aspects of the present studies increase our confidence in the results. First, the association between gratitude and SCS replicated across three different samples that were diverse in regard to ethnicity, age, sexual orientation, and relationship status, increasing our confidence in the external validity of our findings. Second, Study 1 employed a longitudinal design to establish the temporal association, and Study 2 employed an experimental design to establish the causal relationship, between gratitude and SCS. Together, the current studies aimed to identify a determinant of SCS to further understand how couples can combat normative declines in sexual and relationship satisfaction. Results from these studies suggest that experiencing and receiving gratitude increased the motivation to meet a partner's sexual needs.


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Supplemental Material

The supplemental material is available in the online version of the article.

Note

1. Due to a programming error, this scale used a 1–11 scale instead of the typical 1–7 scale.

References

- Algoe, S. B. (2012). Find, remind, and bind: The functions of gratitude in everyday relationships. *Social and Personality Psychology Compass*, 6, 455–469.
- Algoe, S. B., Gable, S. L., & Maisel, N. (2010). It's the little things: Everyday gratitude as a booster shot for romantic relationships. *Personal Relationships*, 17, 217–233.
- Algoe, S. B., Haidt, J., & Gable, S. L. (2008). Beyond reciprocity: Gratitude and relationships in everyday life. *Emotion*, 8, 425–429.
- Algoe, S. B., Kurtz, L. E., & Hilaire, N. M. (2016). Putting the "you" in "thank you": Examining other-praising behavior as the active

- relational ingredient in expressed gratitude. *Social Psychological and Personality Science*, 7, 658–666.
- Baker, L. R. (2020). *Gratitude increases recipients' commitment through automatic partner evaluations, yet unreciprocated gratitude decreases commitment through discrepancies in deliberative evaluations*. Manuscript submitted for publication.
- Baker, L. R., McNulty, J. K., Overall, N. C., Lambert, N. M., & Fincham, F. D. (2013). How do relationship maintenance behaviors affect individual well-being? A contextual perspective. *Social Psychological and Personality Science*, 4, 282–289.
- Bartlett, M. Y., & DeSteno, D. (2006). Gratitude and prosocial behavior: Helping when it costs you. *Psychological Science*, 17, 319–325.
- Brennan, K. A., & Shaver, P. R. (1995). Dimensions of adult attachment, affect regulation, and romantic relationship functioning. *Personality and Social Psychology Bulletin*, 21, 267–283.
- Byers, E. S. (2005). Relationship satisfaction and sexual satisfaction: A longitudinal study of individuals in long-term relationships. *The Journal of Sex Research*, 42, 113–118.
- Byers, E. S., & Demmons, S. (1999). Sexual satisfaction and sexual self-disclosure within dating relationships. *Journal of Sex Research*, 36, 180–189.
- Chmielewski, M., & Kucker, S. C. (2019). An MTurk crisis? Shifts in data quality and the impact on study results. *Social Psychological and Personality Science*. <http://doi.org/10.1177/1948550619875149>
- Collins, N. L., & Miller, L. C. (1994). Self-disclosure and liking: A meta-analytic review. *Psychological Bulletin*, 116, 457.
- Day, L. C., 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, 791–804.
- Fisher, W. A., Donahue, K. L., Long, J. S., Heiman, J. R., Rosen, R. C., & Sand, M. S. (2015). Individual and partner correlates of sexual satisfaction and relationship happiness in midlife couples: Dyadic analysis of the international survey of relationships. *Archives of Sexual Behavior*, 44, 1609–1620.
- Fitzsimons, G. M., Finkel, E. J., & vanDellen, M. R. (2015). Transactional goal dynamics. *Psychological Review*, 122, 648–674.
- Fletcher, G. J. O., & Simpson, J. A. (2000). Ideal standards in close relationships: Their structure and function. *Current Directions in Psychological Science*, 9, 102–105.
- Gordon, A. M., Impett, E. A., Kogan, A., Oveis, C., & Keltner, D. (2012). To have and to hold: Gratitude promotes relationship maintenance in intimate bonds. *Journal of Personality and Social Psychology*, 103, 257–274.
- Gordon, C. L., Arnette, R. A., & Smith, R. E. (2011). Have you thanked your spouse today? Felt and expressed gratitude among married couples. *Personality and Individual Differences*, 50, 339–343.
- Graham, C. A., Sanders, S. A., Milhausen, R. R., & McBride, K. R. (2004). Turning on and turning off: A focus group study of the factors that affect women's sexual arousal. *Archives of Sexual Behavior*, 33, 527–538.
- Grant, A. M., & Gino, F. (2010). A little thanks goes a long way: Explaining why gratitude expressions motivate prosocial behavior. *Journal of Personality and Social Psychology*, 98, 946–955.
- Hill, P. L., & Allemand, M. (2011). Gratitude, forgiveness, and well-being in adulthood: Tests of moderation and incremental prediction. *The Journal of Positive Psychology*, 6, 397–407.
- Impett, E. A., Beals, K. P., & Peplau, L. A. (2003). Testing the investment model of relationship commitment and stability in a longitudinal study of married couples. In N. J. Pallone & N. J. Pallone (Eds.), *Love, romance, sexual interaction: Research perspectives from current psychology* (pp. 163–181). Transaction.
- Impett, E. A., & Muise, A. (2019). Relationships and sexuality: You reap what you sow in the bedroom. In D. Schoebi & B. Campos (Eds.), *New directions in the psychology of close relationships* (pp.136–152). Routledge.
- 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, 2455–2473.
- Impett, E. A., Muise, A., & Peragine, D. (2014). Sexuality in the context of relationships. In L. Diamond & D. Tolman (Eds.), *APA handbook of sexuality and psychology* (1, pp.269–316). American Psychological Association.
- Impett, E. A., Peplau, L. A., & Gable, S. L. (2005). Approach and avoidance sexual motivation: Implications for personal and interpersonal well-being. *Personal Relationships*, 12, 465–482.
- Joel, S., Gordon, A. M., Impett, E. A., MacDonald, G., & Keltner, D. (2013). The things you do for me: Perceptions of a romantic partner's investments promote gratitude and commitment. *Personality and Social Psychology Bulletin*, 39, 1333–1345.
- Kashdan, T. B., Blalock, D. V., Young, K. C., Machell, K. A., Monfort, S. S., McKnight, P. E., & Ferssizidis, P. (2018). Personality strengths in romantic relationships: Measuring perceptions of benefits and costs and their impact on personal and relational well-being. *Psychological Assessment*, 30, 241–258.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. Guilford press.
- Kerr, S. L., O'Donovan, A., & Pepping, C. A. (2015). Can gratitude and kindness interventions enhance well-being in a clinical sample? *Journal of Happiness Studies*, 16, 17–36.
- Lambert, N. M., Clark, M. S., Durtschi, J., Fincham, F. D., & Graham, S. M. (2010). Benefits of expressing gratitude: Expressing gratitude to a partner changes one's view of the relationship. *Psychological Science*, 21, 574–580.
- Lambert, N. M., & Fincham, F. D. (2011). Expressing gratitude to a partner leads to more relationship maintenance behavior. *Emotion*, 11, 52–60.
- Lambert, N. M., Graham, S. M., & Fincham, F. D. (2009). A prototype analysis of gratitude: Varieties of gratitude experiences. *Personality and Social Psychology Bulletin*, 35, 1193–1207.
- Landis, M., Bodenmann, G., Bradbury, T. N., Brandstatter, V., Peter-Wright, M., Backes, S., Sutter-Stickel, D., & Nussbeck, F. W. (2014). Commitment and dyadic coping in long-term relationships. *The Journal of Gerontopsychology and Geriatric Psychiatry*, 27, 139–149.

- Laumann, E. O., Paik, A., Glasser, D. B., Kang, J. H., Wang, T., Levinson, B., Moreira, E. D., Jr., Nicolosi, A., & Gingell, C. (2006). A cross-national study of subjective sexual well-being among older women and men: Findings from the global study of sexual attitudes and behaviors. *Archives of Sexual Behavior, 35*, 145–161.
- Mallory, A. B., Stanton, A. M., & Handy, A. B. (2019). Couples' sexual communication and dimensions of sexual function: A meta-analysis. *Journal of Sex Research, 56*, 882–898.
- McCarthy, B., & Wald, L. M. (2012). Sexual desire and satisfaction: The balance between individual and couple factors. *Sexual and Relationship Therapy, 27*, 310–321.
- McCullough, M. E., Emmons, R. A., & Tsang, J. (2002). The grateful disposition: A conceptual and empirical topography. *Journal of Personality and Social Psychology, 82*, 112–127.
- McCullough, M. E., Kilpatrick, S. D., Emmons, R. A., & Larson, D. B. (2001). Is gratitude a moral affect? *Psychological Bulletin, 127*, 249–266.
- McNulty, J. K., Wenner, C. A., & Fisher, T. D. (2016). Longitudinal associations among relationship satisfaction, sexual satisfaction, and frequency of sex in early marriage. *Archives of Sexual Behavior, 45*, 85–97.
- Muise, A., & Impett, E. A. (2015). Good, giving, and game: The relationship benefits of communal sexual motivation. *Social Psychological and Personality Science, 6*, 164–172.
- 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 long-term romantic relationships. *Social Psychological and Personality Science, 4*, 267–273.
- Muise, A., Kim, J. J., Impett, E. A., & Rosen, N. O. (2017). Understanding when a partner is not in the mood: Sexual communal strength in couples transitioning to parenthood. *Archives of Sexual Behavior, 46*, 1993–2006.
- O'Sullivan, L. F., Byers, E. S., & Finkelman, L. (1998). A comparison of male and female college students' experiences of sexual coercion. *Psychology of Women Quarterly, 22*, 177–195.
- Raudenbush, S., Bryk, A., & Congdon, R. (2013). *HLM 7.01 for Windows [Hierarchical linear and nonlinear modeling software]*. Multivariate Software.
- Reis, H. T. (2014). Responsiveness: Affective interdependence in close relationships. In M. Mikulincer & P. R. Shaver (Eds.), *The Herzliya series on personality and social psychology. Mechanisms of social connection: From brain to group* (pp. 255–271). American Psychological Association.
- Rubin, J. D., Moors, A., Matsick, J. L., Ziegler, A., & Conley, T. D. (2014). On the margins: Considering diversity among consensually non-monogamous relationships. *Journal for Psychology, 22*, 19–37.
- Rusbult, C. E., Drigotas, S. M., & Verette, J. (1994). The investment model: An interdependence analysis of commitment processes and relationship maintenance phenomena. In D. J. Canary & L. Stafford (Eds.), *Communication and relational maintenance* (pp. 115–139). Academic Press.
- Sedikides, C., & Gregg, A. P. (2008). Self-enhancement: Food for thought. *Perspectives on Psychological Science, 3*, 102–116.
- Seligman, M. E. P., Steen, T., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions. *American Psychology, 60*, 410–421.
- Sprecher, S. (2002). Sexual satisfaction in premarital relationships: Associations with satisfaction, love, commitment, and stability. *The Journal of Sex Research, 39*, 190–196.
- Stanley, S. M., & Markman, H. J. (1992). Assessing commitment in personal relationships. *Journal of Marriage and Family, 54*, 595–608.
- Weinstein, N., & Ryan, R. M. (2010). When helping helps: Autonomous motivation for prosocial behavior and its influence on well-being for the helper and recipient. *Journal of Personality and Social Psychology, 98*, 222–244.
- Williams, L. A., & Bartlett, M. Y. (2015). Warm thanks: Gratitude expression facilitates social affiliation in new relationships via perceived warmth. *Emotion, 15*, 1–5.
- Wood, A. M., Maltby, J., Stewart, N., & Joseph, S. (2008). Conceptualizing gratitude and appreciation as a unitary personality trait. *Personality and Individual Differences, 44*, 621–632.

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