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Partner-focused obsessions and self-esteem: An experimental investigation

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Abstract

Background: Relationship-related obsessive-compulsive phenomena (ROCD) are encountered frequently in the clinic, and involve severe consequences to personal and relational well-being. One common presentation of ROCD involves disabling preoccupation and doubts focusing on intimate partner's flaws (partner-focused obsessions). It was previously suggested that individuals perceiving their partner's failures or flaws as reflecting on their own self-worth may be more sensitive to intrusive thoughts pertaining to their partner's qualities and characteristics. In the current studies, we assessed the link between partner-focused OC symptoms and self-esteem contingent on partner-value. **Methods:** In two studies we assessed the impact of experimentally induced partner-focused intrusions on self-esteem. In Study 1, we assessed individuals' self-esteem after one of three primes: (a) intrusion about one's partner comparing unfavorably with others of the same sex (i.e., alternative partners), (b) intrusion about one's partner comparing unfavorably to oneself, (c) and a neutral prime. In study 2, we tried to replicate Study 1 and also examine whether favorable intrusions of one's partner would have an opposite effect on self-esteem than unfavorable intrusions. **Results:** Compared with the other groups, participants who were primed with intrusions of their partner being unfavorably compared to others reported lower self-esteem, but only if they had high levels of partner-focused symptoms. Favorable intrusions of partner to others did not have a positive effect on self-esteem among individuals with high levels of partner-focused symptoms. **Conclusions:** Partner-value self-sensitivity may be one of the perpetuating mechanisms involved in partner-focused OC phenomena.

Obsessive Compulsive Disorder (OCD) is a complex and heterogeneous disorder with a variety of obsessional themes (Clark & Beck, 2010; McKay et al., 2004). Exploring the implications of obsessional themes on etiology, maintenance, and treatment may promote insights of understudied processes of OCD and related disorders (Doron, 2014). Indeed, we have recently witnessed a growing surge in theory and research pertaining to the role of common and specific factors associated with specific OCD themes, including scrupulosity (Abramowitz & Jacoby, 2014), repugnant obsessions (Moulding, Aardema, & O'Connor, 2014), moral and physical contamination fears (Elliott & Radomsky, 2013) and preoccupation with physical-appearance (Veale, 2004; Wihlem & Neziroglu, 2002).

An obsessional theme receiving increasing empirical and theoretical attention is close interpersonal relationships (Doron, Derby, & Szepsenwol, 2014). This obsessional theme has often been referred to as Relationship Obsessive Compulsive Disorder (ROCD; Doron, Derby et al., 2014; Doron, Derby, Szepsenwol, & Talmor, 2012a, 2012b). ROCD research has focused on two related, but conceptually distinct symptom presentations (Doron, Derby et al., 2014). The first presentation, coined relationship-centered obsessive compulsive (OC) symptoms, involves obsessive doubts and preoccupation centered on the relationship itself. These symptoms often revolve around the strength of one's feelings towards the partner, the feel of the relationship (does it feel right), or the nature of one's partner's feelings towards oneself (Doron, Derby et al., 2012b).

The second presentation, coined partner-focused OC symptoms, involves obsessive doubts and preoccupation centered on perceived flaws of the relationship partner (Doron,

Derby et al., 2012a). These flaws are often physical features (e.g., "his/her nose is too big"), social qualities (e.g., "s/he is not social enough", "s/he does not have what it takes to succeed in life"), or personality attributes such as morality, intelligence, or emotional stability (e.g., "s/he is not intelligent enough", "s/he is not emotionally stable"). Although similar in some ways to what has been referred to in the literature as Body Dysmorphic Disorder by Proxy (i.e., obsessional focus on perceived physical flaws; see Greenberg et al., 2013; Josephson & Hollander, 1997), partner-focused OC symptoms extend beyond the physical and encompass a larger range of partner-focused obsessional themes (e.g., morality, sociability, success, etc.; Doron, Derby et al., 2014).

OCD symptoms have been previously linked with thematically relevant self-vulnerabilities (Aardema et al., 2013; Doron, Sar-El, & Mikulincer, 2012; García-Soriano, Clark, Belloch, del Palacio, & Castaneiras, 2012). Relationship-centered OC symptoms, in particular, were found to be associated with heightened vulnerability in the relational self-domain and attachment anxiety (i.e., double-relationship vulnerability; Doron, Szepsenwol, Karp, & Gal, 2013). In the current studies, we focus on self-vulnerabilities that may be associated with partner-centered OC symptoms. Specifically, we examine whether partner-focused OC symptoms are associated with amplified self-sensitivity to the perceived value of one's partner.

Phenomenology and Correlates of Partner-Focused OC Symptoms

Partner-focused OC symptoms may come in the form of thoughts (e.g., "Is she beautiful or smart enough?") and images (e.g., memory of a specific act), but can also occur in the form of urges (e.g., to leave one's current partner). Such intrusions are generally ego-dystonic, as they contradict the individual's personal values (e.g.,

"appearance should not be important in selecting a relationship partner") and/or subjective experience of the relationship (e.g., "I know she is not stupid, but I can't stop questioning her intelligence"). Hence, they are perceived as unacceptable and unwanted, and often bring about feelings of guilt and shame regarding their occurrence and/or content.

Like other OCD symptoms, partner-focused compulsions involve a wide range of compulsive behaviors including repeated comparisons (e.g., of the partner's characteristics with those of other potential partners), checking (e.g., of the partner's behaviors or competencies), neutralizing (e.g., visualizing being happy together), analyzing the pros and cons of the current situation, and reassurance seeking. These compulsive behaviors are aimed at alleviating the significant distress caused by the unwanted intrusions, but paradoxically exacerbate the frequency and impact of such preoccupations (Doron, Derby et al., 2014).

Partner-focused OC symptoms have been linked with significant personal (e.g., mood, anxiety, other OCD symptoms; Doron, Derby et al., 2012a) and dyadic difficulties (e.g., relationship and sexual dissatisfaction; Doron, Derby et al., 2012a; Doron, Mizrahi, Szepsenwol, & Derby, 2014). For instance, results from a recent study comparing OCD, ROCD, and community controls, indicated similar levels of interference in functioning, distress, resistance attempts and degree of perceived control in both clinical groups (Doron, Derby, Szepsenwol, Nahaloni, & Moulding, under review).

Self-Vulnerabilities and Partner-Focused OC Symptoms

According to cognitive-behavioral theories of obsessions, most individuals experience a range of unwanted intrusive thoughts, urges, and images (Clark et al., 2014;

Moulding, Coles et al., 2014; Rachman & de Silva, 1978; Radomsky et al., 2014).

Obsessive-compulsive (OC) behaviors are a result of misinterpretations of such common intrusions based on maladaptive beliefs (e.g., inflated responsibility, importance of thoughts) and the resulting mismanagement of such intrusions (Obsessive Compulsive Cognitions Working Group [OCCWG], 2005; Rachman, 1997; Salkovskis, 1985).

Several scholars have proposed that preexisting self-vulnerabilities contribute to the development of specific obsessive content (e.g., Aardema et al., 2013; Aardema & O'Connor, 2007; Clark & Purdon, 1993; García-Soriano et al., 2012). For instance, Doron and Kyrios (2005) have argued that thoughts or events that challenge highly valued self-domains (e.g., moral self-domain) may threaten a person's sense of self in this domain, and activate cognitions and behavioral tendencies aimed at compensating for the perceived deficits. In the case of individuals with OCD, these coping responses may further increase the occurrence of unwanted intrusions and the accessibility of “feared self” cognitions (e.g., I’m bad, I’m immoral, I’m unworthy; Aardema, Moulding, Radomsky, Doron et al., 2014). In this way, for such individuals, common aversive experiences may activate overwhelmingly negative evaluations in sensitive self-domains (Doron et al., 2008).

Consistent with this proposal, recent research has shown that information threatening one's moral self-perceptions leads to an increase in contamination-related tendencies (Doron, Sar-El et al., 2012) and to the activation of OCD related maladaptive beliefs (e.g., importance and control of thoughts; Abramovitch, Doron, Sar-El, & Altenburger, 2013).

In ROCD, sensitivity of self may also increase vulnerability to relationship-centered and partner-focused OC symptoms (Doron, Derby et al., 2014). For instance, two recent studies have linked the co-occurrence of self-esteem contingent on intimate relationships and attachment anxiety (i.e., double relationship-vulnerability) with relationship-centered obsessions and behavioral tendencies (Doron et al., 2013). Similarly, partner-focused OC symptoms may be linked with self-esteem contingent on the perceived value of one's partner. When one's self evaluation is impacted by perceived failures or flaws of the partner, thoughts or events that challenge such perceptions may lead to momentary decreases in one's self-esteem, and activate cognitions and behavioral tendencies aimed at counteracting this deficit (e.g., Doron, Sar-El et al., 2012).

Like in other forms of OCD, however, such responses may further increase the occurrence of unwanted intrusions and the activation of relationship-related and OCD-related dysfunctional beliefs (e.g., catastrophic perceptions of relationship separation, inflated responsibility; Doron, Derby et al., 2014; OCCWG, 2005) exacerbating common intrusive thoughts into obsessional preoccupation. Indeed, individuals presenting with partner-focused obsessions often fear missing a better partner and report their most distressing triggers to be potential partners that are more successful, smart, or good looking than their current partners.

The goal of the current research was to assess the link between partner-focused OC symptoms and self-esteem contingent on partner-value. In Study 1, we examined whether the impact of experimentally induced unwanted negative partner-focused intrusions on self-esteem is contingent on the level of partner-focused symptoms. In Study 2, we tried to replicate Study 1's results with a pre-post experimental design and

also examined whether positive partner-focused intrusions would have a positive effect on self-esteem contingent on the level of partner-focused symptoms.

Study 1

In Study 1, we hypothesized that after being primed with an intrusion of their partner unfavorably compared to others of the same sex (i.e., alternative partners), individuals with high levels of partner-focused OC symptoms would show lower self-esteem than they would after being primed with an unwanted intrusion of their partner unfavorably compared to themselves or after a neutral control prime.

Method

Participants. One hundred and thirty-one Israeli community participants (60 women and 71 men), ranging in age from 23 to 67 years ($Mdn = 46$), were recruited via *Midgam.com*, a large Israeli online survey platform. All participants were in a romantic relationship at the time of the study, with a median length of 174 months. All participants were Jewish (54.2% secular, 22.9% traditional, and 22.9% religious). Their education level varied (4.6% did not complete a highschool education, 50.4% completed either a highschool education or non-academic higher education, and 45% had an academic degree or were in the process of getting one), and so did their socioeconomic status (40.5% below average, 29.7% average, and 29.8% above average). Participants were informed of their rights and provided online informed consent in accordance with university IRB standards. They were reimbursed 20 NIS (around \$5) for their time.

Measures and procedure. The study was administered online using the web-based survey platform *midgam.com*. Participants were contacted via email and asked to participate in a short study in psychology assessing the links between personality,

relationship quality and well-being. Following a general instructions page, participants completed the Partner-Related Obsessive-Compulsive Symptoms Inventory (PROCSI; Doron, Derby et al., 2012a) a self-report measure of obsessions and compulsions focused on one's partner's perceived flaws. These include appearance flaws (e.g., "every time I'm reminded of my partner I think about the flaw in his/her appearance"), character flaws (e.g., "I am constantly bothered by doubts about my partner's morality level"), psychological flaws (e.g., "I keep examining whether my partner acts in a strange manner"), and intellectual flaws (e.g., "the thought that my partner is not intelligent enough bothers me greatly"). Participants rated the extent to which such thoughts and behaviors describe their experiences in their relationships on a scale ranging from 1 (*not at all*) to 5 (*very much*). Previous studies have shown that the PROCSI subscales can be regarded as part of a single higher-order factor (Doron, Derby et al., 2012a). Moreover, the PROCSI total score was found to be related to various measures of relational and personal dysfunction, as well as to measures of OCD symptoms and OCD-related beliefs (Doron, Derby et al., 2012a). Thus, a total score was created by averaging all 24 items (Cronbach's $\alpha = .97$).

Following the completion of the PROCSI, participants were randomly assigned to one of three conditions. In the other-comparison condition ($N = 44$) participants were asked to indicate the extent to which they felt eleven particular emotions (disturbed, excited, depressed, guilty, enthusiastic, proud, angry, ashamed, inspired, strong, anxious) when thinking their partner was not as (1) beautiful, (2) smart, (3) moral, and (4) successful as others of the same sex. Each emotion was rated on a scale ranging from 1 (*not at all*) to 5 (*very much*). This prime was intended to induce a type of intrusive

thought commonly reported by ROCD clients—that their partner is not as good as other alternative partners. Previous piloting of this manipulation on 15 undergraduates indicated that the manipulation led to an intrusive-like experience (i.e., thought or image) relating to the relevant condition. The participants also reported that the experience was similar to other daily intrusive experiences they previously had.

In the self-comparison condition ($N = 46$), participants were asked to indicate the extent to which they felt the same emotions as in the other-comparison condition when thinking their partner was not as beautiful, smart, moral and successful as themselves. In the neutral condition ($N = 41$), participants were asked to indicate the extent to which they felt these emotions when dealing with daily chores such as shopping, cleaning the house, going over mail and preparing food.

Following this task, participants completed the *Single-Item Self-Esteem Scale* (SISE; Robins, Hendin, & Trzesniewski, 2001). They rated the extent to which the sentence "I have a high self-esteem" was self-descriptive on a 9-point scale, ranging from *not very true for me* (1) to *very true for me* (9). The SISE has been found to have high test–retest reliability and strong criterion validity (Robins et al., 2001). In three studies Robins, Hendin, et al. (2001) also reported correlations between the SISE and the Rosenberg Self-Esteem scale (RSE; Rosenberg, 1965) ranging from .74 to .80. Disattenuated correlations were near unity (range .91 - .99), suggesting the two measures share almost all of their reliable variance. Moreover, the SISE and the RSE had nearly identical correlations with 37 different criteria variables (e.g., domain-specific self-evaluations, self-evaluative biases, social desirability, the Big Five personality dimensions).

Results and discussion

Two dummy coded variables were created to represent the experimental condition. These variables reflected contrasts between each comparison groups (self, other) and the neutral control¹ (for distribution of demographic variables and baseline measures as a function of experimental condition see Table 1). The dummy variables were entered in a first step of a hierarchical regression, along with the standardized total score of the PROCSI. Product terms for the interactions between each of the dummy variables and the PROCSI total score were entered in Step 2 (see Table 2). The dependent variable was the one-item self-esteem score. As expected, PROCSI scores were negatively associated with self-esteem above and beyond experimental condition. In addition, participants in the other-comparison condition reported lower self-esteem than participants in the neutral control group, controlling for PROCSI score. This latter effect, however, was significantly moderated by PROCSI score (see Table 2). Simple slopes analyses showed that the difference was significant among individuals high (+1 SD) in their PROCSI total score ($b = -1.36, p < .001$), but not among individuals low (-1 SD) in their PROCSI total score ($b = -0.09, ns$). In fact, among participants who were high in their PROCSI score, self-esteem was also significantly lower in the other-comparison condition than in the self-comparison ($b = -1.03, p < .001$; see Figure 1). No significant effects were found for the self-comparison condition with the neutral group (see Table 2 & Figure 1).

As expected, for individuals showing high partner-focused OC symptoms, priming an intrusion of one's partner not being as beautiful, intelligent, moral, or successful as others of the same sex led to lower self-esteem scores relative to such negative intrusions relating to oneself or to thinking about neutral tasks. Such effects were not

found in individuals showing low partner-focused OC tendencies. Consistent with clinical experience, the vulnerable point of comparison for individuals with high ROCD symptoms seem to be other potential romantic partners rather than oneself (Doron & Derby, in press). Individuals with ROCD symptoms, therefore, may be more bothered by missing the ‘best’ partner they can personally get, than by overlooking the ‘perfect’ individual. Indeed, ROCD clients often report their symptoms being triggered by better looking, smarter, or more successful potential partners than they currently have.

This finding suggests that the self-esteem levels of individuals predisposed to obsess on their partner's perceived flaws may be particularly sensitive to their partner's comparison to others. Such sensitivity may trigger OCD-related cognitions (e.g., importance of thoughts; Abramovitch et al., 2013) and compulsive behaviors (Doron, Sar-El et al., 2012), maintaining and escalating the obsessive cycle.

Study 2

Study 1 has supported our hypothesis that the self-esteem of individuals predisposed to obsess on their partner's perceived flaws would be particularly sensitive to intrusions of their partner comparing unfavorably with romantic alternatives. Indeed, OCD related intrusive thoughts are defined as unwanted and distressing thoughts that intrude into consciences (Clark & Beck, 2010). In study 2, we attempted to replicate this finding, with three changes. First, because the self-comparison condition did not differ from the neutral control condition in Study 1, we eliminated the neutral control condition.

Second, we wanted to examine whether individuals with high levels of partner-focused OC symptoms would be positively affected by positive partner-related intrusions as they are negatively affected by negative partner-related intrusions. If this is the case,

then individuals with partner-focused symptoms may simply have partner-contingent self-esteem, for better or worse. Alternatively, the self-esteem of individuals with partner-focused symptoms may be reactive to negative intrusions only. Hence, Study 2 had a 2 (comparison target: other vs. self) by 2 (comparison direction: negative vs. positive) design.

Finally, we controlled for base levels of self-esteem, as measured prior to the study. This control was added to partial out any preexisting between-group variability in self-esteem that might remain following the random assignment, and to improve the power of our test in detecting changes in self-esteem following the manipulation.

Method

Participants. One hundred and seventy-nine Israeli community participants (85 women and 94 men), ranging in age from 19 to 65 years ($Mdn = 43$), were recruited via *Midgam.com*, a large Israeli online survey platform. All participants were in a romantic relationship at the time of the study, with a median length of 137 months. All participants were Jewish (53.6% secular, 26.8% traditional, and 19.6% religious). Their education level varied (13.4% did not complete a highschool education, 53.1% completed either a highschool education or non-academic higher education, and 33.5% had an academic degree or were in the process of getting one), and so did their socioeconomic status (40.8% below average, 35.8% average, and 23.4% above average).

Measures and procedure. Participants were initially recruited via *Midgam.com* and completed the SISE, PROCSI and a daily routine measure (distraction). Two weeks later, participants were asked to log into the website again. They were randomly divided into four conditions. The negative-comparison to others ($N = 41$) and the negative-

comparison to self conditions ($N = 46$) were identical to study 1. The two additional conditions included the positive-comparison to self and the positive-comparison to others. In the positive-comparison to others condition ($N = 48$), participants were asked to indicate the extent to which they felt particular emotions when thinking their partner was more beautiful, smart, moral and successful than others of the same sex. In the positive-comparison to self condition ($N = 44$), the reference to others of the same sex was replaced with a reference to oneself such that participants were asked to indicate the extent to which they felt particular emotions when thinking their partner was more beautiful, smart, moral and successful than themselves. As in study 1, following this task, participants completed the Single-Item Self-Esteem Scale (SISE; Robins et al., 2001).

Results and discussion

Base self-esteem, as measured two weeks before the study, was entered in a first step of a hierarchical regression in order to control for initial individual differences in self-esteem (for distribution of demographic variables and baseline measures as a function of experimental condition see Table 3). Variables coding the target (-1 self, +1 other) and direction (-1 positive, +1 negative) of comparison were entered in a second regression step, along with the standardized total score of the PROCSI. Product terms for the two-way interactions between direction and target of comparison and the PROCSI total score were entered in Step 3, and the three-way interaction between these variables was entered in Step 4 (see Table 4). The dependent variable was the one-item self-esteem score measured following the manipulation. Although lower order effects were found for the target of comparison, these effects were qualified by a significant three-way interaction between the target and direction of comparison and the PROCSI total score

(see Table 4). Simple slopes analyses showed that, controlling for base self-esteem, participants in the negative-comparison to other group reported lower self-esteem than participants in the negative-comparison to self group, but only when they were high (+1 SD) in their PROCSI total score. No effects were found for participants low (-1 SD) in their PROCSI score, or for the positive comparison groups (see Figure 2).

Similar to Study 1, Study 2's findings indicated that when individuals with high levels of partner-focused OC symptoms were primed with negative intrusions of their partner unfavorably compared to alternative partners, their self-esteem decreased (compared to the control condition). At the same time, the self-esteem of these individuals was not reactive to positive intrusions of the same kind. It seems that the self-esteem of individuals with high levels of partner-focused OC symptoms is not merely contingent on the perceived value of their partner, but that it is specifically vulnerable to negative intrusions of the type often reported by ROCD patients. In other words, it is likely that in individuals with partner-focused OC symptoms, the harmful effects of exposure to attractive potential partners are not offset by positive effects of exposure to unattractive potential partners.

General Discussion

ROCD is an understudied and disabling form of OCD. One of the main presentations of ROCD is obsessional preoccupation with a partner's flaws. Such partner-focused OC symptoms have severe personal and dyadic consequences (Doron, Derby et al., 2014). In fact, by stifling satisfactory intimate-relationships, partner-focused symptoms may decrease resilience to all forms of psychopathology (Mikulincer & Shaver, 2007). Consistent with expectations, our findings showed that partner-focused

OC symptoms are associated with self-esteem sensitivity to negative partner-related intrusive thoughts. Specifically, our results suggest that exposure to intrusive-like experiences such as unfavorable comparisons of one's partner to other potential partners decreases self-esteem in individuals with high levels of partner-focused symptoms. Our results also suggest that the self-esteem of individuals with high levels of partner-focused symptoms does not benefit from favorable comparisons of the same kind.

These findings are consistent with research and theory linking self-vulnerabilities to OC symptoms, cognitions, and behavioral tendencies (e.g., Aardema & O'Connor, 2007; Doron, Sar-El et al., 2012; García-Soriano et al., 2012). Specifically, our results support previous proposals that thoughts or events that threaten perceptions of self in particular self domains (e.g., morality, relationships) may momentarily reduce feelings of self-worth, leading to the activation of compensating behaviors (e.g., neutralizing, checking) that maintain OCD symptoms (Doron & Kyrios, 2005).

According to Doron and Kyrios (2005), pre-existing vulnerabilities in specific self-domains such as morality increase attention and vigilance to events related to these domains. Individuals' whose self-esteem is highly dependent on the relationships domain, for instance, may be oversensitive to any slight relationship concern (e.g., feeling of boredom) as it has significant implications for their feelings of worth (Doron et al., 2013). Similarly, individuals perceiving their partner's deficiencies or flaws as reflecting on their own worth (i.e., partner-value self-sensitivity) may be more sensitive to thoughts or events challenging their partner's value. For such individuals, partner-related events may trigger thoughts such as "if my partner is not as good as others, I'm not good enough" and "my partner's behaviors reflect on me".

Indeed, prior findings suggest that even subtle challenges to self-perceptions in sensitive self-domains may increase behavioral tendencies and cognitive biases associated with OCD (Abramovitch et al., 2013; Doron, Sar-El et al., 2012; Doron et al., 2013). Likewise, our findings suggest that the self-esteem of individuals with high partner-focused obsessions is sensitive to thoughts threatening positive views of their partner (e.g., s/he is not as good as others). Thus, our results are consistent with the proposal that particular self-esteem sensitivities perpetuate the ROCD symptom cycle.

The effects of our manipulation were relatively small. In reality, however, individuals with ROCD are constantly exposed to such challenging primes. Partner-value self-sensitivity may therefore increase vigilance and reactivity to partner-related concerns and doubts. Additional factors may also be implicated in the escalation of such intrusions to obsessions (Doron, Derby et al., 2014; Doron et al., under review). For instance, following a sudden threat to one's self-esteem, OCD related maladaptive beliefs such as attributing exaggerated importance to the occurrence and control of thoughts or an inflated sense of responsibility may lead to the catastrophization of relationship related intrusions (OCCWG, 2005). Attachment anxiety may also lead to the escalation of distress following relationship related events (Mikulincer & Shaver, 2007). More specific relationship-related cognitive biases may also be activated following sudden fluctuations in self-esteem. These may include the tendency to "catastrophize" the consequences of leaving an existing relationship (e.g., "separation from my partner would lead to irreversible damage") or of remaining in a less than perfect relationship (e.g., "if I stay in a relationship that I am not sure about, I will be miserable forever").

Although consistent with the proposed model, our studies have some limitations. One important limitation is the use of nonclinical cohorts. Recent reviews support the utility of nonclinical participants in OCD related research (e.g., Abramowitz et al., 2014) and taxometric findings suggest a dimensional rather than categorical view of OC-related beliefs and symptoms (Haslam, Williams, Kyrios, McKay, & Taylor, 2005). Nevertheless, individuals with ROCD may differ from non clinical participants in symptom-related impairment. Future research would benefit from examining the link between partner-focused symptoms and self-esteem sensitivities in participants presenting with ROCD. Such studies would also benefit from assessing the links between self-esteem decreases in ROCD and the triggering of general and specific maladaptive beliefs.

In study 2, we controlled for preexisting self-esteem to partial between-group variability in self-esteem that might remain following random assignment and to improve the power of our test in detecting changes in self-esteem following the manipulation. Nevertheless, pre-existing depressive symptoms may impact ROCD symptoms and self-esteem. To avoid this possible confound, future studies may consider controlling for preexisting depressed mood. Assessing the impact of negative feedback in additional domains may shed further light on the relative specificity of the link between partner-value self-vulnerability and ROCD symptoms.

Our studies focused on intrusions commonly occurring in ROCD-comparing one's partner to self or others. It is likely, however, that for individuals presenting with ROCD a variety of intrusions relating to one's partner provoke similar decreases in levels of self-esteem. Future research should consider assessing the effect of other intrusions on self-

esteem. For instance, negative intrusions relating to future parenting qualities (e.g., “s/he will not be a good parent”), may also decrease self-esteem in individuals presenting with ROCD. In this context, research may consider assessing whether the emotional response triggered by the occurrence of the intrusion mediates decreases in self-esteem levels.

Taking into account potential limitations and pending on replication of our findings with a clinical cohort, our results may have important theoretical and clinical implications. To our knowledge, these are the first studies examining partner-value self-vulnerability and its association with ROCD. Such investigations may increase awareness and clinical focus on the link between partner-value evaluations and feelings of self-worth especially in the context of ROCD treatments. Partner sensitivity self-worth should be explicitly explored, such that the client understands the association between perceptions of partners' behaviors and one owns feelings of worth. Effort should be given to identify and expand the rules of competency and boundaries of such reliance on the partner-value assessments.

Consistent with cognitive behavioral interventions for OCD, interventions for ROCD may benefit from the use of cognitive challenging techniques and behavioral experiments to challenge this link (see Doron & Derby, in press). Examples may include perspective taking (e.g., to what extent do you judge your friends based on their partner's value?) and testing of catastrophic expectations relating to the impact of the partners behaviors or qualities on oneself (e.g., I won't be able to tolerate the embarrassment; I can't live with such flaws) or others (e.g., others will reject me) using planned exposure exercises.

In conclusion, this research is the first systematic attempt to assess partner-value self- vulnerability as a significant vulnerability factor in the development of partner-focused OC phenomena.

Notes

1. When coded this way, the unstandardized regression coefficient (b) for each dummy variable reflects the mean difference between the group coded 1 on this variable (other, self) and the reference group (neutral), which is always coded 0. The analysis was also conducted using effects coding (1, -1) and yielded the same findings.
2. For each step, coefficients for variables already in the model were excluded from the table in the interest of brevity. A full table of coefficients for each step is available from the corresponding author upon request.

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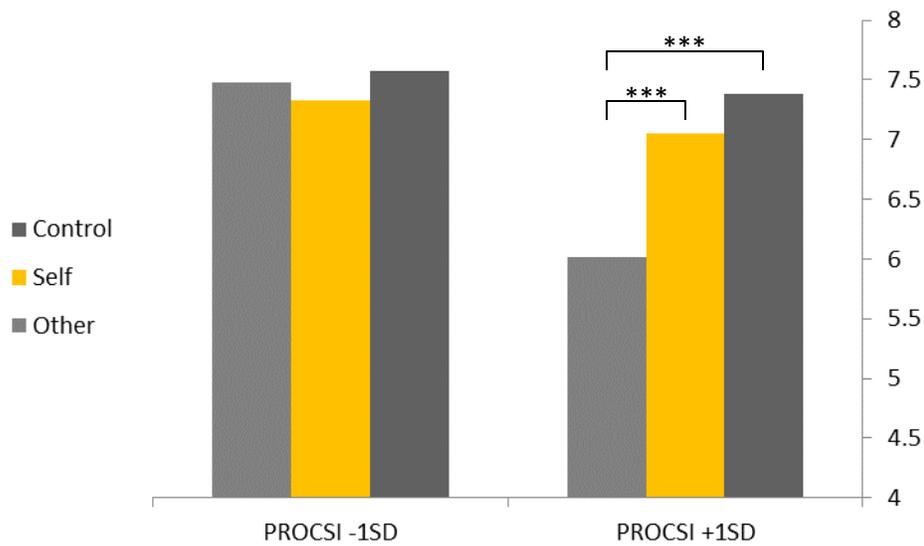


Figure 1. Estimated group means of self esteem as a function of PROC SI total score.

*** $p < .001$

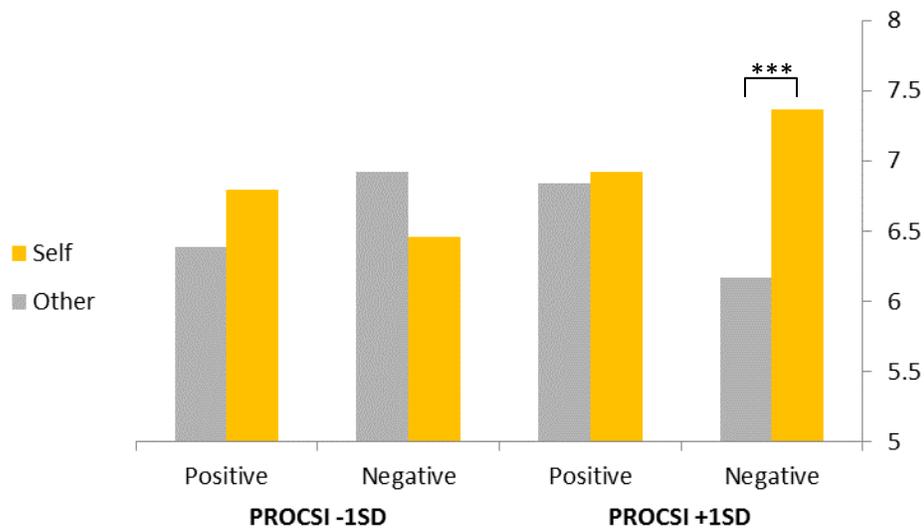


Figure 2. Estimated group means of self esteem as a function of PROC SI total score, controlling for base self esteem.*** $p < .001$

Table 1

Distribution of Demographic Variables and Baseline Measures as a Function of Experimental Condition – Study 1

Condition	PROCSI	Age	Relation.	Sex	Religiosity			Education			SES		
	total		duration										
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	Male	Sec.	Trad.	Rel.	NHS	HS	AC	Low	Ave	High
Less than self	1.64 (0.68)	47.07 (14.21)	208.83 (160.61)	50.0%	59.7%	19.4%	21.0%	4.8%	50.0%	45.2%	41.9%	19.4%	38.7%
Less than others	1.63 (0.60)	43.52 (11.59)	176.07 (138.32)	41.4%	60.3%	20.7%	19.0%	6.9%	44.8%	48.3%	36.2%	36.2%	27.6%
Neutral condition	1.76 (0.87)	45.32 (10.93)	214.76 (141.25)	48.3%	48.3%	27.6%	24.1%	1.7%	56.9%	41.4%	46.6%	31.0%	22.4%
<i>F / χ^2</i>	0.42, <i>ns</i>	0.92, <i>ns</i>	0.87, <i>ns</i>	0.99, <i>ns</i>	2.35, <i>ns</i>			2.90, <i>ns</i>			6.70, <i>ns</i>		

Table 2

Regression Coefficients for the Effects of Comparison Target, PROCSI Total Score, and their Interaction on Self-Esteem.

	<i>b</i>	β	<i>SE</i>	<i>t</i>	ΔR^2	<i>F</i>
Step 1					.07*	3.09*
Less than self	-0.31	-.10	0.30	-1.03		
Less than others	-0.71	-.24	0.31	-2.34*		
Z-PROCSI	-0.26	-.18	0.12	-2.09*		
Step 2					.03	2.29
Less than self × Z-PROCSI	-0.04	-.02	0.28	-0.16		
Less than others × Z-PROCSI	-0.63	-.21	0.31	-2.04*		

Note. Overall $R^2 = .10$, $p < .05$. Regression coefficients are reported for the step in which the variable was entered². Less than self = Worse than self condition compared with neutral condition; Less than other = Worse than other condition compared with neutral condition; Z-PROCSI = PROCSI standardized total score.

* $p < .05$

Table 3

Distribution of Demographic Variables and Baseline Measures as a Function of Experimental Condition – Study 2

Condition	Base	PROCSI total	Age	Relation. duration	Sex	Religiosity			Education			SES		
	SE													
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	Male	Sec.	Trad.	Rel.	NHS	HS	AC	Low	Ave	High
Less than self	6.76 (2.01)	1.90 (0.92)	43.48 (12.43)	176.13 (154.55)	43.5%	52.2%	30.4%	17.4%	17.4%	50.0%	32.6%	50.0%	32.6%	17.4%
More than self	6.86 (1.65)	1.83 (0.93)	40.73 (12.84)	175.36 (150.97)	59.1%	54.5%	25.0%	20.5%	15.9%	56.8%	27.3%	34.4%	38.6%	27.3%
Less than others	6.34 (1.77)	1.98 (0.81)	38.56 (12.34)	138.90 (132.01)	58.5%	58.5%	22.0%	19.5%	7.3%	56.1%	36.6%	41.5%	36.6%	22.0%
More than others	6.65 (1.70)	1.49 (0.60)	45.98 (12.34)	212.88 (164.75)	50.0%	50.0%	29.2%	20.8%	12.5%	50.0%	37.5%	37.5%	35.4%	27.1%
<i>F / χ^2</i>	0.67, <i>ns</i>	3.22, <i>p</i> < .05	2.98, <i>p</i> < .05	1.76, <i>ns</i>	2.99, <i>ns</i>		1.23, <i>ns</i>			3.13, <i>ns</i>			3.12, <i>ns</i>	

Table 4

Regression Coefficients for the Effects of Comparison Target, Comparison Direction, PROCSI Total Score, and their Interactions on Self-Esteem, Controlling for Base Self-Esteem.

	<i>b</i>	β	<i>SE</i>	<i>t</i>	ΔR^2	<i>F</i>
Step 1					.47	160.24***
Base self-esteem	0.68	.69	0.05	12.66***		
Step 2					.02	2.11
C.Target	-0.20	-.12	0.10	-2.11*		
C.Direction	0.01	.00	0.10	0.08		
Z-PROCSI	0.11	.06	0.10	1.14		
Step 3					.01	1.51
C.Target × C.Direction	0.02	.01	0.10	0.18		
C.Target × Z-PROCSI	-0.21	-.12	0.10	-2.03*		
C.Direction × Z-PROCSI	-0.02	-.01	0.10	-0.20		
Step 4					.02	6.10*
C.Target × C.Direction × Z-PROCSI	0.25	.10	0.10	2.47*		

Note. Overall $R^2 = .52$, $p < .001$. Regression coefficients are reported for the step in which the variable was entered². C.Target = contrast between other (+1) and self (-1); C.Direction = contrast between negative (+1) and positive (-1); Z-PROCSI = PROCSI standardized total score; Base self-esteem = self-esteem one month before study.

* $p < .05$ ** $p < .01$ *** $p < .001$