Journal of Obsessive-Compulsive and Related Disorders 3 (2014) 169–180

Contents lists available at ScienceDirect

Journal of Obsessive-Compulsive and Related Disorders

journal homepage: www.elsevier.com/locate/jocrd

Relationship obsessive compulsive disorder (ROCD): A conceptual framework

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ARTICLE INFO

Article history:
Received 11 July 2013
Received in revised form
21 November 2013
Accepted 3 December 2013
Available online 17 December 2013

Keywords:
Obsessive compulsive disorder
Relationships
Relationship obsessive compulsive disorder
Relationship-centered obsessions
Partner-focused obsessions
Attachment
Self
ROCD

ABSTRACT

Obsessive compulsive disorder (OCD) is a disabling and prevalent disorder with a variety of clinical presentations and obsessional themes. Recently, research has begun to investigate relationship-related obsessive–compulsive (OC) symptoms including relationship-centered and partner-focused OC symptoms. In this paper, we present relationship obsessive–compulsive disorder (ROCD), delineate its main features, and describe its phenomenology. Drawing on recent cognitive-behavioral models of OCD, social psychology and attachment research, we present a model of the development and maintenance of ROCD. The role of personality factors, societal influences, parenting, and family environments in the etiology and preservation of ROCD symptoms is also evaluated. Finally, the conceptual and empirical links between ROCD symptoms and related constructs are explored and theoretically driven assessment and intervention procedures are suggested.

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1. Introduction

David, a 32-year-old business consultant living with his partner for 3 months, enters my office and describes his problem: "I've been in a relationship for a year, but I can't stop thinking about whether this is the right relationship for me. I see other woman on the street or on Facebook and I can't stop thinking whether I will be happier with them, or feel more in love with them. I ask my friends what they think. I check what I feel for her over and over again, whether I remember her face, whether I think about her enough. I know I love my partner, but I have to check and recheck. I feel depressed. I can't go on like this". Jane, a 28 year-old academic in a 2-year relationship, recently moved in with her partner. She describes a different preoccupation: "I love my partner, I know I can't live without him, but I can't stop thinking about his body. He does not have the right body proportions. I know I love him, and I know these thoughts are not rational, he looks good. I hate myself for having these thoughts, I don't think looks are all that important in a relationship, but I just can't get it out of my head. The fact that I look at other men also drive me crazy. I feel I can't marry him like this. Why do I always have to compare his looks to other men's?".

David and Jane suffer from what is commonly referred to as relationship obsessive compulsive disorder (ROCD) – obsessive–compulsive symptoms that focus on intimate relationships. Obsessive compulsive disorder (OCD) is an incapacitating disorder with a wide variety of obsessional themes including contamination fears, fear of harm to self or others, and scrupulosity (Abramowitz, McKay, & Taylor, 2008). Relationship obsessive compulsive disorder (ROCD) refers to an increasingly researched obsessional theme – romantic relationships. ROCD often involves preoccupations and doubts centered on one's feelings towards a relationship partner, the partner's feelings towards oneself, and the "rightness" of the relationship experience (*relationship-centered*; Doron, Derby, Szepsenwol, & Talmor., 2012a). Relationship-related OC phenomena may also include disabling preoccupation with the perceived flaws of one's relationship partner (*partner-focused*; Doron, Derby, Szepsenwol, & Talmor., 2012b). ROCD symptoms include a wide range of compulsive behaviors such as repeated checking (e.g., of one's own feelings), comparisons (e.g., of partners' characteristics with those of other potential partners), neutralizing (e.g., visualizing being happy together) and reassurance seeking. ROCD obsessions and associated compulsive behaviors lead to severe personal and dyadic distress and often impair functioning in individuals' social, occupational or other important areas of life.

This paper outlines a theory of ROCD and reviews recent findings. We argue that consideration of this obsessional theme may lead to a

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2211-3649/$ - see front matter © 2013 Elsevier Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.jocrd.2013.12.005

broader understanding of the development and maintenance of OCD, especially within a relational context. Relationship-related obsessive–compulsive symptoms may occur in various types of relationships including people's relationship with their parents, children, mentors, or even their God. In this paper, however, we will refer to ROCD within the context of romantic relationships. Consistent with prior OCD-related theoretical work (e.g. Doron & Kyrios, 2005; Rachman, 1997; OCCWG, 1997), we propose several processes involved in the development and maintenance of ROCD and review initial evidence for their role in relationship obsessive–compulsive phenomena. We also argue that socio-cultural factors, early childhood environments, and parent–child relationships, influence the development of dysfunctional cognitive biases, self-perceptions, and attachment representations relevant to ROCD. Thus, this paper aims to extend the focus of current OCD research by exploring potential distal and proximal vulnerability factors that might contribute to the development and maintenance of ROCD-related dysfunctional beliefs and symptoms.

2. Relationship obsessive compulsive disorder (ROCD): phenomenology

ROCD is manifested in obsessive doubts and preoccupations regarding romantic relationships and compulsive behaviors performed in order to alleviate the distress associated with the presence and/or content of the obsessions. Relationship obsessions often come in the form of thoughts (e.g., "is he the right one?") and images of the relationship partner, but can also occur in the form of urges (e.g., to leave one's current partner). Compulsive behaviors in ROCD include, but are not limited to, repeated checking of one's own feelings and thoughts toward the partner or the relationship, comparing partner's characteristics or behaviors to others', visualizing or recalling positive experiences or feelings, reassurance seeking and self-reassurance (see Table 1).

Relationship-related intrusions are often ego-dystonic as they contradict the individual's subjective experience of the relationship (e.g., "I love her, but I can't stop questioning my feelings") or his or her personal values (e.g., "appearance should not be important in selecting a relationship partner"). Such intrusions are perceived as unacceptable and unwanted, and often bring about feelings of guilt and shame regarding their occurrence and/or content. For instance, individuals may feel shame about having critical thoughts about their partner's intelligence, looks, or social competencies. Guilt and shame may also be associated with neutralizing behaviors, such as comparing one's partner with other potential partners.

The age of onset of ROCD is unknown. In our clinic, clients presenting with ROCD often report the onset of symptoms in early adulthood. In such cases, ROCD symptoms seem to persist throughout the individuals' history of romantic relationships. Some individuals, however, trace back the onset of their ROCD symptoms to the first time they faced commitment-related romantic decisions (e.g., getting married, having children). Although ROCD symptoms can occur outside of an ongoing romantic relationship (e.g., obsessing about past or future relationships), such symptoms seem to be most distressing and debilitating when experienced in the course of an ongoing romantic relationship. In community samples, ROCD symptoms were not found to significantly relate to relationship length or gender (Doron et al., 2012a,2012b; Doron, Szepsenwol, Karp, & Gal., 2013).

The dyadic context provides abundant triggers of relationship-centered and partner-focused OC phenomena. Nevertheless, for some individuals, ROCD symptoms may be activated by the termination of a romantic relationship. In this case, people may report being obsessively preoccupied with their previous partner "being the right one" and "missing the ONE". Such cases are frequently associated with extreme fear of anticipated regret and are commonly accompanied by self-reassuring behaviors (e.g., recalling the reasons for relationship termination), compulsive comparisons (i.e., with current partners), and compulsive recollection of previous experiences (e.g., relationship conflicts). Other people report avoiding romantic relationships altogether for dread of hurting others (e.g., "I will drive her crazy"; "It will be a lie") or fear of re-experiencing ROCD symptoms. For instance, clients may report avoiding second dates for years for fear of obsessing about the flaws of their partners or their partners becoming overly attached to them.

3. Measures of relationship obsessive–compulsive symptoms

A quick search on Google would show the term ROCD has been frequently used in the last several years mainly on peer-support OCD forums. Systematic research, however, requires precise definitions and valid measurement tools. Recently, two measures were developed and validated for this purpose: the relationship obsessive–compulsive inventory (ROCI), assessing relationship-centered OC symptoms (Doron et al., 2012a), and the partner-related obsessive–compulsive symptoms inventory (PROCSI), assessing partner-focused OC symptoms (Doron et al., 2012b). In accordance with recent evidence that OCD symptoms are better conceptualized in terms of dimensions rather than categories (e.g., Haslam, Williams, Kyrios, McKay, & Taylor, 2005; Olatunji, Williams, Haslam, Abramowitz, & Tolin, 2008), we designed the ROCI and

Table 1
Examples of typical triggers, intrusions, appraisals and responses in ROCD.

Typical triggers	Intrusion	Appraisal	Typical responses
Contextual			
Romantic cues	**Relationship-centered**		
(e.g., romantic movies, other couples interacting etc.)	"I do not feel anything"	I have to make sure I love her/him	**Emotional responses**
Exposure to others with desirable attributes (e.g., work colleagues, Facebook etc.)	"we are not as happy as they are"	Or	Anxiety
Physical attraction (or lack thereof)	Urge to leave	I may be missing the ONE.	Guilt
Talk of commitment	**Partner-focused**		Shame
Emotional	"She is unattractive"	I will regret this forever	**Cognitive-behavioral responses**
Boredom			Reassurance seeking, monitoring feelings, comparisons avoidance (e.g., romantic cues and attractive others)
Anger	"that is a stupid thing to say" (by the partner)	Or	
Anxiety	"this woman is interesting"(not partner)	I will never be happy with my partner	
Apathy			
Jealousy			

the PROCSI to assess relationship-centered and partner-focused symptoms on a continuum, from mild preoccupation to severe and debilitating disorder. Our references to ROCD symptoms throughout this paper correspond to this dimensional view.

The ROCI was constructed to measure the severity of obsessions (i.e., preoccupation and doubts) and compulsions (i.e., checking and reassurance seeking) on three relational dimensions: one's feelings towards a relationship partner (e.g., "I continuously reassess whether I really love my partner"), the partner's feelings towards oneself (e.g., "I continuously doubt my partner's love for me"), and the "rightness" of the relationship (e.g., "I check and recheck whether my relationship feels right"). Findings supported this three-factor structure above and beyond two alternative measurement models, but also suggested the existence of a higher-order general factor for relationship-centered OC symptoms. The ROCI performed well on most goodness of fit indices, and the total and subscale scores were highly reliable (Doron et al., 2012a).

The PROCSI was designed to measure obsessions (i.e., preoccupations and doubts) and neutralizing behaviors (i.e., checking) focused on the perceived flaws of one's relationship partner in six character domains: physical appearance, sociability, morality, emotional stability, intelligence, and competence. Findings for this measure supported a six-factor structure above and beyond alternative measurement models, but again suggested the existence of a higher-order general factor for partner-focused OC symptoms. The PROCSI's total and subscales scores were found to be internally consistent and had good test–retest reliability (Doron et al., 2012b).

ROCI and PROCSI scores seem to discriminate between ROCD and other OCD symptoms. In an ongoing study, we compared the ROCI and PROCSI scores of 17 clients presenting with ROCD to the scores of 18 clients presenting with other OCD themes. We also used the Mini International Neuropsychiatric Interview (MINI; Sheehan et al., 1998) to attain clinical diagnosis. Findings so far show significant differences between the two groups on the ROCI, $F(1, 33)=10.28$, $p=.003$, $\eta^2=.24$, and the PROCSI, $F(1, 33)=5.42$, $p=.026$, $\eta^2=.14$. ROCD clients' mean ROCI scores (on a 0 to 4 scale) were higher ($M=2.10$, $SD=.67$) than those of clients presenting other OCD symptoms ($M=1.16$, $SD=1.02$). This difference remained significant when controlling for severity of OCD and depression symptoms. Similarly, ROCD clients' mean PROCSI scores were higher ($M=1.33$, $SD=.56$) than clients presenting other OCD symptoms ($M=.78$, $SD=.79$). Again, this difference remained significant when controlling for severity of OCD and depression symptoms. Thus, ROCD symptoms, as measured by the ROCI and the PROCSI, seem to be conceptually and empirically differentiated from other OCD symptom dimensions.

Nevertheless, as the ROCI and PROCSI are designed to assess obsessive–compulsive phenomena, small to moderate correlations are expected between these measures and tools assessing other OCD symptoms. Indeed, we have found moderate correlations between the ROCI and the Obsessive Compulsive Inventory-Revised (OCI-R; Foa et al., 2002). Specifically, the ROCI total score was moderately correlated with the OCI-R total score ($r=.45$) and subscale scores (rs ranged from .28 for neutralizing to .47 for obsessions; Doron et al., 2012a). Similarly, small to moderate correlations were found between the PROCSI total score and the OCI-R total score ($r=.44$) and subscale scores (rs ranged from .28 for ordering to .40 for obsessions; Doron et al., 2012b).

4. Development and maintenance mechanisms in ROCD

The etiology and maintenance of ROCD symptoms is most likely multi-faceted and involving a combination of factors. In this section, we explore the role of OCD related beliefs, processes related to dysfunctional monitoring of internal states, and perceptions of relational commitment in the development and maintenance of ROCD. Following recent models of OCD, we then suggest that pre-existing self-vulnerabilities and attachment insecurities may be implicated in the exacerbation of intrusions into obsessions. Finally, we evaluate the potential role of other personality factors, societal influences, and parenting and family environment factors in the etiology and preservation of ROCD symptoms.

4.1. ROCD and cognitive models of OC-related disorders

Cognitive behavioral models of OC-related disorders give a central role to maladaptive appraisals of internal or external stimuli in the development and maintenance of these disorders. According to such models (e.g., Rachman, 1997; Storch, Abramowitz, & Goodman, 2008; Wilhelm, Buhlmann, Cook, Greenberg, & Dimaite, 2010; Wihlem & Neziroglu, 2002), obsessive preoccupation is a result of catastrophic misinterpretations of common phenomena. In the case of OCD, individuals catastrophically interpret the presence or consequence of naturally occurring intrusive thoughts as indicating imminent danger to self or others (Rachman, 1997; Salkovskis, 1985). Similarly, in the case of Body Dysmorphic Disorder (BDD), individuals catastrophically misinterpret the significance and social consequences of esthetic features and minor flaws in their own appearance (e.g., "people will be disgusted of me"; Wilhelm et al., 2010; Veale, 2004).

Cognitive beliefs and biases, such as threat overestimation, perfectionism, intolerance of uncertainty, importance of thoughts and their control, and inflated responsibility increase the likelihood of catastrophic appraisals in OC-related disorders (OCCWG, 2005; Storch et al., 2008). These appraisals, in turn, promote selective attention towards potentially distressing stimuli (OCCWG, 1997; Veal, 2004). Moreover, ineffective strategies for dealing with such stimuli, such as repeated checking and reassurance seeking, paradoxically exacerbate the frequency and emotional impact of such preoccupations.

ROCD symptoms may involve cognitive beliefs and biases similar to those underlying other OC phenomena (Doron, Szepsenwol, Derby, & Nahaloni, 2012). Some dysfunctional OCD related processes, however, may be more pertinent to the relational OCD theme. In the following paragraphs, we first describe the way beliefs previously identified as important in OCD may play a role in ROCD. We then refer to processes that may be specifically germane to ROCD symptoms.

4.2. ROCD and OCD-related maladaptive beliefs

Beliefs previously linked with OCD have also been found to be linked with ROCD (Doron et al., 2012a, 2012b). OC-related beliefs may influence interpretations of intrusive thoughts pertaining to the relationships or the relationship partner. For instance, overestimation of threat may bias individuals' interpretations of others' feelings towards them (e.g., "He didn't call for hours, he doesn't really love me") and the severity and consequences of the partner's perceived deficits (e.g., "he is extremely unstable, hence he will never be able to provide for our family"). Perfectionist tendencies may promote preoccupation with the "rightness" of the relationship (e.g., "I don't feel perfect with him all the time so maybe he is not THE ONE") and other-oriented perfectionism (Hewitt & Flett, 1991) may result in extreme preoccupation with specific features of a romantic partner's personality or appearance (e.g., "she is not moral enough", "her nose is too big"). The belief that one can and should control one's thoughts may promote suppression efforts of relationship doubts or negative thoughts about the partner, thereby increasing their occurrence.

Intolerance for uncertainty may play a particularly important role in ROCD as it pertains to one of its core elements – uncertainty about being in the right relationship. Moreover, ROCD symptoms

often concern vague, intangible internal states (e.g., love) that inherently involve uncertainty. Difficulty with uncertainty may increase distress and maladaptive management of commonly occurring relationship doubts. We believe that effective treatment requires postponing of any relational decisions at the initial stages of therapy, making such tolerance an important target for treatment interventions (see Section 8).

4.3. ROCD and monitoring of internal states

Liberman and Dar (2009) have recently proposed an innovative model of OCD. They suggested that individuals with OCD doubt their internal states and show decreased capacity to access these states. In an attempt to decrease doubts regarding their inner feelings and states, OCD clients over-monitor and tend to rely on external feedback for assessing them. In support of these hypotheses, studies have found that, as compared to participants with low obsessive–compulsive tendencies, participants with high obsessive–compulsive tendencies are (a) less accurate in assessing internal states, such as their own level of relaxation or muscle tension, and (b) rely more on external feedback in assessing these internal states (Lazarov, Dar, Oded, & Liberman, 2010, Lazarov, Dar, Liberman, & Oded, 2012). Moreover, Shapira, Gundar-Goshen, Liberman, and Dar (2013) have recently found that intense monitoring of one′s feelings of emotional closeness in an intimate conversation hampers achieving these feelings, as measured by sitting distance between pair members. Increased monitoring may indeed reduce access to internal states and feelings.

Relationship-centered OC symptoms, by definition, involve preoccupation with internal states (e.g., love for a partner or feeling right). In order to assess or reduce uncertainty regarding their own feelings, ROCD clients often invest time and effort in monitoring their feelings and emotions. We often hear clients describe continuous monitoring of their feelings towards their partner (e.g., "Do I feel love right now?"; "Does this feel right?"). In such instances, monitoring of internal states is used as a deliberate attempt to reassure oneself about the strength and quality of one′s own feelings.

ROCD clients also describe using what they perceive as "objective" signs in order to judge their feelings. For instance, one client quantified her partner′s love for her by compulsively comparing the time he spent with her to the time he spent with others (e.g., his mother). Another client reported 'time spent crying′ following a relationship breakup as a retrospective indicator of his feelings. More often, however, clients gage relationship quality or rightness by referring to the cognitive (e.g., doubts and preoccupations) and behavioral (e.g., looking at other women) features of ROCD symptoms. For instance, clients may identify experiencing doubts as a negative indicator of relationship "rightness" or of their feelings towards their partner. Accordingly, clients may treat thoughts about partner′s deficiencies as negative indicators of their own feelings (e.g., "if I see so many flaws, I do not love him"; see below for further discussion of this link).

Increased monitoring of internal states and referring to external feedback for the evaluation of such states may alleviate distress in the short term. Like other compulsive behaviors, however, repetitive use of such strategies results in ROCD symptoms′ exacerbation.

4.4. ROCD and relationship-related beliefs

Recently, Doron et al. (2012a) proposed that maladaptive relational beliefs can uniquely contribute to the development and maintenance of ROCD. Following Rachman′s model (1997, 1998), they suggested several biases implying catastrophic consequences of relationship-related thoughts, images, and urges. These may include beliefs focusing on the disastrous consequences of leaving a relationship (e.g., "If I leave, I will hurt my partner") and the catastrophic consequences of remaining in a less than perfect relationship (e.g., "If I maintain a relationship I am not sure about, I will be miserable forever").

In this context, research on relational commitment may be particularly relevant. Adams and Jones (1997) proposed a three-dimensional conceptualization of relational commitment, including (a) a personal commitment dimension (feelings of affection, intimacy, and love toward a partner); (b) a moral-normative dimension (one′s moral obligation to the relationship and the partner); and (c) a constraining dimension (social, financial and emotional negative costs of relationship dissolution). Studies have found that high levels of personal commitment help romantically involved people to appreciate the good qualities of a partner and shield them from the temptation of attractive alternatives (see Lydon, 2010 for a review). In the case of clients with ROCD, low levels of personal commitment may intensify obsessional doubts concerning the rightness of their relationship and the attractiveness of their partner. Moreover, these doubts may further reduce personal commitment, which, in turn, may decrease the effectiveness of temptation-shielding mechanisms and then intensify the severity of ROCD symptoms.

The normative and constraining dimensions of relational commitment may be heavily influenced by one′s culture and religion (e.g., Adams & Jones, 1997; Allgood, Harris, Skogrand, & Lee, 2008; also see Section 4.7). In our view, these two dimensions reflect the presence of catastrophic negative beliefs regarding the moral (e.g., "If I leave her I will be an immoral person") and practical (e.g., "I will have to move out of my home", "I will be excommunicated by my church") consequences of relationship termination that may exacerbate ROCD symptoms. Indeed, it is not uncommon for clients with ROCD to express strong commitment-related moral beliefs (e.g., "you should only marry once"). Such beliefs seem to amplify the need for certainty about the relationship or the partner, thereby increasing ROCD clients′ tendency to use neutralizing behaviors (e.g., monitoring of internal states, monitoring of partner′s behaviors). Similarly, focusing on the social, emotional and financial negative consequences of relationship dissolution may magnify fears of making the "wrong decision", leading to catastrophic interpretations of relational doubts and even encouraging avoidance of relationships all together.

An additional relationship-related factor that may be involved in the maintenance of ROCD symptoms is anticipated regret. Regret is experienced when we realize that our current situation could have been more satisfying had we made a different choice. Anticipated regret refers to regret that we anticipate experiencing in the future (Zeelenberg, 1999). Fear of anticipated regret may significantly heighten reactivity to relational intrusions. For instance, one of our clients expressing strong fears of anticipated regret described an "extremely distressing situation": While on Facebook, the thought that his partner is not intelligent enough "popped" into his head. He reported the following thought sequence: "There are so many women out there, if I stay with one that may not be smart enough I will regret it forever, but if I leave, I may realize that I missed the love of my life". Indeed, one core feature of ROCD is extreme fear of making the wrong relationship-related decision. Clients alternate between being terrorized by thoughts of separation (e.g., "I will always think that I may have missed THE ONE") and being trapped in the wrong relationship (e.g., "I will always feel that I have compromised").

4.5. ROCD and self-related processes

Pre-existing self-vulnerabilities may also play a significant role in the development and maintenance of ROCD. Rachman (1997,

1998) has argued that intrusions challenging a person's system of values are more likely to escalate into obsessions than intrusions not challenging such values. Following this idea, several scholars have proposed that pre-existing self-vulnerabilities contribute to the specific theme of an individual's obsession (e.g., Aardema & O'Connor, 2007; Aardema, Molding, Radomsky, Doron, & Allamby, in press; Bhar & Kyrios, 2007; Clark & Purdon, 1993; García-Soriano, Clark, Belloch, del Palacio, & Castañeiras, 2012). In this context, 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-worth in this domain, and activate cognitions and behavioral tendencies aimed at counteracting the damage and compensating for the perceived deficits (e.g., Doron, Sar-El, & Mikulincer, 2012). For some individuals, such as OCD sufferers, these responses paradoxically increase the accessibility of negative self-cognitions (e.g., "I'm immoral and unworthy") that together with the activation of other dysfunctional beliefs associated with obsessions (e.g., inflated responsibility, threat overestimation; OCCWG, 1997) can result in the development of OCD.

In our view, vulnerability in the relational self-domain may lead to the escalation of relationship-centered intrusions into obsession (Doron et al., 2013). That is, sensitivity to intrusions challenging self-perceptions in the relationship domain (e.g., "I do not feel right with my partner at the moment") may trigger catastrophic relationship appraisals (e.g., "being in a relationship I am not sure about will make me miserable forever") and other maladaptive appraisals (e.g., "I shouldn't have such doubts regarding my partner"), followed by neutralizing behaviors (e.g., constantly seeking reassurance that the relationship is going right). Similarly, when one's self-worth is contingent on the perceived value of a relationship partner (i.e., partner-contingent self-worth), every thought or event related to this partner's flaws can intensify partner-focused OC symptoms. Hence, individuals perceiving their partner's failures or flaws as reflecting on their own self-worth are expected to be more sensitive to thoughts or events pertaining to their partner's qualities and characteristics. Such intrusions may trigger catastrophic appraisals (e.g., "He is not intelligent enough. We will never be able to support our family") and neutralizing behaviors (e.g., increased monitoring of the partner's grammatical errors).

Although relational challenges and doubts of the kinds described above are fairly frequent, most individuals manage to adaptively respond to such self-challenges and are therefore less likely to be flooded by negative self-evaluations following them. One psychological mechanism suggested to thwart such adaptive regulatory processes is attachment insecurity (Doron, Moulding, Kyrios, Nedeljkovic, & Mikulincer, 2009).

4.6. ROCD and attachment representations

In his seminal work, Bowlby (1973,1982) proposed that interpersonal interactions with primary caregivers ("attachment figures") early in life are internalized in the form of mental representations of self and others ("internal working models"). When attachment figures are absent, inconsistently available, or rejecting in times of need, one's sense of attachment security (a sense that the world is generally a safe place, others are helpful when called upon, and it is possible to explore the environment curiously and confidently and engage rewardingly with other people) is undermined and negative models of self and others are developed. Such models increase the likelihood of self-related doubts and emotional difficulties later in life (Mikulincer & Shaver, 2007). Parents are most frequently the main attachment figures during childhood. In adulthood, however, romantic partners often take parents' place as main attachment figures.

Research has supported a two-dimensional representation of individual differences in attachment insecurities in adulthood, organized around two orthogonal dimensions of anxiety and avoidance (Brennan, Clark, & Shaver, 1998; Mikulincer & Shaver, 2007). Attachment anxiety involves worries regarding the availability of significant others to adequately respond in times of need, and the adoption of "hyperactivating" attachment strategies (i.e., energetic, insistent attempts to obtain care, support, and love from attachment figures) as a means of regulating distress. Attachment avoidance involves distrust in significant others and a striving to maintain autonomy and emotional distance from them. Avoidantly attached individuals commonly endorse "deactivating" strategies, such as denial of attachment needs and suppression of attachment-related thoughts and emotions. Individuals who score low on both insecurity dimensions are said to hold a stable sense of attachment security (Mikulincer & Shaver, 2007).

Attachment insecurities may hinder adaptive coping with self-related challenges by activating dysfunctional distress-regulating strategies, further exacerbating anxiety and ineffective responses (Doron et al., 2009). For instance, anxiously attached individuals tend to react to self-relevant failures by amplifying the negative consequences of the aversive experience, ruminating on it, and increasing mental activation of attachment-relevant fears such as fear of being abandoned because of one's "bad" self (Mikulincer & Shaver, 2003). Thus, in addition to disrupting functional coping with experiences that challenge sensitive self-domains, anxiously attached people's coping strategies may render them particularly vulnerable to relationship-centered obsessions.

Recent findings clearly indicate that self-sensitivity in the relational domain and attachment anxiety jointly contribute (i.e., double-relationship vulnerability) to the development and maintenance of ROCD symptoms (Doron et al., 2013). In one study, attachment anxiety was linked with more severe ROCD symptoms mainly among individuals whose self-worth was strongly dependent on their relationship. In a second study, subtle hints of incompetence in the relational self-domain (i.e., mildly negative feedback regarding the capacity to maintain long-term intimate-relationships) led to increased ROCD tendencies mainly among individuals high in both attachment anxiety and relationship-contingent self-worth. Thus, jointly with sensitivity in the relational self-domain, attachment anxiety may result in increased susceptibility to relationship-related obsessive doubts and worries.

4.7. ROCD and other personality and societal factors

Personal factors may interact with societal influences to affect one's ability to feel secure with one's choice of partner. In recent years, we have seen a significant increase in exposure to other people, their behaviors, and their personal lives. Such increased exposure is particularly evident in digital social networks (e.g., Facebook, Google+) and dating websites/applications, thus creating an *illusion of availability*. Many clients with ROCD describe such extensive exposure to "potential" partners as a powerful trigger of their relationship doubts and preoccupations. In this context, it is import to note that religious views, cultural norms and socio-economic status may significantly impact both actual (e.g., ability to work outside the family home or acceptability of divorce) and perceived availability of alternative partners (e.g., having access to social media).

Studies in behavioral economics have long supported the role of perceived availability of better options in indecisiveness and differing choices (e.g., Tversky & Shafir, 1992). Within the relationship setting, recent studies looking at decision making in online dating sites show that more search options (i.e., increased perceived availability) result in excessive searching, poorer decision making and reduced selectivity in finding potential partners (the "more-means-worse effect"; Wu &

Chiou, 2009). More recently, Yang and Chiou (2010) examined the moderating effect of personality tendencies on decision making in the context of choice proliferation. Findings indicated that the more-means-worse effect is accentuated among individuals with "maximizing" decision making tendencies. Maximizing strategies are aimed at achieving the best possible option and require an exhaustive search of all possibilities (Simon, 1956; Schwartz et al., 2002). In contrary, "satisfying" strategies strive for a "good enough" choice, searching until meeting an acceptable option. Indeed, individual differences in maximizing decision-making strategies were linked with poorer mental health (e.g., depression symptoms), increased maladaptive beliefs (e.g., perfectionism), more regret, and higher likelihood of engaging in upward social comparisons (Schwartz et al., 2002). Maximizers were also found to spend more time reviewing options when making a choice than do satisfiers, arguably increasing maximizers' uncertainty regarding the best choice (Dar-Nimrod, Rawn, Lehman, & Schwartz, 2009; Iyengar, Wells, & Schwartz, 2006). Moreover, recent findings suggest that maximizers tend to avoid commitment to their decisions in a way that contributes to reduced satisfaction (Sparks, Ehrlinger, & Eibach, 2012). Thus, increased perceived availability of alternatives together with a maximizing decision making strategy may increase doubts regarding one's relational choices.

4.8. ROCD, parenting, and family environment

Parents are arguably the first and most dominant model of romantic relationships a person is exposed to during childhood. It is reasonable to hypothesize, therefore, that the quality of a person's parents' romantic relationship would impact her or his relational beliefs, emotions, and behaviors. Indeed, early experiences, particularly parental conflict, have been theoretically and empirically linked with people's relational attitudes, values and behaviors (See Amato, 2000, for review). Moreover, parental conflict has been theoretically and empirically associated with other ROCD-related factors, such as attachment insecurities, dysfunctional self-views, and mental health problems (e.g., Amato, 2001; Davies & Cummings, 1994; Jekielek, 1998; Mikulincer & Shaver, 2007). Finally, many clients with ROCD recall a longstanding history of intense and overt parental conflict. Thus, we propose that a negative family environment during childhood, particularly comprising of intense and longstanding parental conflict, can be a distal vulnerability factor of ROCD.

5. Relational and personal consequences of ROCD

Research has shown that OCD can carry negative consequences for relational functioning (e.g., Angst et al., 2004). For example, the continuous pressure that people with OCD exert on their relationship partners to participate in compulsive rituals has been found to be a source of relational tension and conflict and to impair relationship quality (Koran, 2000). Accordingly, partner's accommodation to OCD symptoms (e.g., taking part in rituals or in avoidance of anxiety-provoking situations) has also been linked with symptom severity, treatment outcomes, and lower relationship satisfaction of the individual with OCD (Boeding et al., 2013). Furthermore, OCD severity has been associated with decreased family, work, and social functioning (Ruscio, Stein, Chiu, & Kessler, 2008), higher caregiver burden and distress (Ramos-Cerqueira, Torres, Torresan, Negreiros, & Vitorino, 2008; Vikas, Avasthi, & Sharan, 2011) and increased marital distress (Emmelkamp, De Haan, & Hoogduin 1990; Rasmussen & Eisen, 1992; Riggs, Hiss, & Foa, 1992). Only recently, research has begun to explore the contribution of ROCD symptoms to poor relational and personal outcomes.

5.1. ROCD and relationship satisfaction

ROCD symptoms may be particularly detrimental to intimate relationships. Similar to common OCD symptoms, ROCD symptoms may bring about negative responses from the relationship partner and be a source of relationship conflict. This may be even more prominent in ROCD, because the focus of the preoccupation is the relationship itself or the relationship partner. Constant relational conflict may seriously undermine relationship satisfaction and endanger the relationship's stability (Amato, 2000).

Yet, ROCD symptoms may impact relationship satisfaction in additional ways. Repeatedly doubting one's relationship or relationship partner may seriously undermine core relationship processes and directly destabilize the relationship. For instance, positive ideals about one's relationship and romantic partner were identified as beneficial cognitive biases of individuals in successful romantic relationships (e.g., Fletcher, Simpson, & Thomas, 2000; Overall, Fletcher, & Simpson, 2006). Idealized relationship and partner perceptions have been linked to positive relational outcomes,such as greater satisfaction, less conflict, and more stable relationships (e.g., Barelds & Dijkstra, 2011; Murray et al., 2011; Murray, Holmes, & Griffin, 1996; Rusbult, Van Lange, Wildschut, Yovetich, & Verette, 2000), whereas the fading of such idealized perceptions has been linked to relationship breakup (Caughlin & Huston, 2006). Individuals with ROCD are likely to find it difficult to maintain idealized relationship and partner perceptions, or even positive ones, in the face of repeated intrusions, and are hence more likely to experience poor relationship satisfaction.

Two studies conducted in nonclinical samples have found the expected relationship between ROCD symptoms and poor relationship satisfaction. In one study, relationship-centered OC symptoms, as measured by the ROCI, were significantly associated with relationship dissatisfaction, even when controlling for common OCD symptoms, mood symptoms, low self-esteem, attachment anxiety and avoidance, and relationship ambivalence (Doron et al., 2012a). This finding was replicated in a subsequent study with similar controls (Doron et al., 2012b). Partner-focused OC symptoms, as measured by the PROCSI, were also found to be significantly associated with relationship dissatisfaction, even when controlling for relationship-centered symptoms in addition to all the other controls mentioned above. In fact, both partner-focused and relationship-centered OC symptoms had their own unique statistical contribution to relationship dissatisfaction, suggesting somewhat divergent causal paths (Doron et al., 2012b). It should be noted, however, that the relationship between relationship satisfaction and ROCD is likely to be bidirectional. That is, poor relationship satisfaction rooted in other factors may promote relationship-centered and partner-focused doubts, just like endogenous relationship-centered and partner-focused doubts may promote poor relationship satisfaction.

5.2. ROCD and well-being

ROCD symptoms may lead to extreme distress, anxiety, and disability. Clients frequently report feelings of shame and guilt about their doubts and preoccupations. These feelings encourage self-criticism and may lower psychological well-being. In addition, neutralizing behaviors involved in ROCD are experienced as uncontrollable and irrational, thereby promoting negative self-perceptions. The time and energy dedicated to preoccupations with a relationship often comes at the expense of work and academic functioning. Indeed, individuals with ROCD report distress due to their symptoms, the related disability stemming for these symptoms, and the anguish they believe they are causing close others.

Recent findings from studies conducted in non-clinical samples support such client reports. In one study, relationship-centered OC symptoms, as measured by the ROCI, were significantly associated with depression, even when controlling for common OCD symptoms, relationship ambivalence, attachment anxiety and avoidance, and low self-esteem (Doron et al., 2012a). This finding was replicated in a subsequent study, in which anxiety and stress were statistically controlled in addition to self-esteem and common OCD symptoms (Doron et al., 2012b). Doron et al. (2012b) also found that partner-focused OC symptoms, as measured by the PROCSI, were significantly associated with depression, even when relationship-centered OC symptoms were added to all the above-mentioned controls. In fact, partner-focused OC symptoms were found to be more consequential to depression than relationship-centered OC symptoms. Whereas partner-focused symptoms predicted depression over and above relationship-centered symptoms, the opposite was not true.

6. The association between relationship-centered and partner-focused OC symptoms

ROCD can involve relationship-centered and partner-focused symptoms. In the following section, we explore the reciprocal associations between these two presentations of ROCD phenomena. We begin by discussing the within-person interplay between relationship-centered and partner-focused symptoms. We then consider the impact of ROCD symptoms on the relationship partner.

6.1. Within-person bidirectional infiltration of ROCD symptoms

Clinical experience and empirical findings indicate that relationship-centered and partner-focused OC symptoms often co-occur. Indeed, the total scores of the PROCSI and ROCI were found to be strongly correlated (e.g., Doron et al., 2012b). Two recent longitudinal studies suggest that these two presentations of ROCD symptoms may fuel each other over time. In one longitudinal study, partner-focused OC symptoms predicted an increase in relationship-centered OC symptoms two months later and vice versa (Doron et al., 2012b). More recently, these findings were replicated in a one-year longitudinal study (Szepsenwol, Doron, & Shahar, submitted for publication).

Partner-focused OC symptoms may exacerbate relationship-centered OC symptoms by increasing doubts regarding the relationship and the relationship quality. As discussed earlier, relationship satisfaction is hampered by partner-focused OC symptoms (Doron et al., 2012b). ROCD clients tend to interpret the occurrence of intrusions regarding the partner's flaws as evidence that something is wrong in this relationship. In this way, preoccupations with the partner's perceived flaws may increase the likelihood of developing doubts regarding the relationship "rightness" and one's feelings towards the partner. Clinical experience also shows that ROCD clients with partner-focused symptoms often devote increased attention to romantic alternatives and compulsively compare their current romantic partners to these alternatives. Increased attention to alternatives, when coupled with low relationship satisfaction, is likely to lower relationship commitment (Rusbult, 1980) and foster relationship doubts.

Relationship-centered OC symptoms may promote partner-focused OC symptoms when identifying partner's deficiencies is used as a means for assessing the rightness of the relationship or one's feelings towards the partner. As argued above, relationship-centered OC symptoms increase monitoring of internal states and reliance on external "objective" feedback for evaluating one's own feelings (Liberman & Dar, 2009). For some clients, identification of deficiencies in a partner is used as a proxy for assessing one's own feelings towards this partner or the relationship. In this way, clients "justify" their doubts and worries by referring to their partner's "objective" flaws.

6.2. Between-person infiltration of ROCD symptoms

In addition to being self-enhanced within the same person over time, ROCD symptoms may also spread from one person to the next, especially within romantic relationships. That is, a person's ROCD symptoms may "infect" over time his or her relationship partner, leading to more ROCD symptoms among this partner. For instance, during a couples-therapy session, a woman described her partner's repeated questioning of her feelings towards him as a trigger for such doubts. Initial findings from an ongoing longitudinal study of dating partners indicate that within a one-month period, relationship-centered symptoms in one dyad member increased relationship-centered symptoms in the other dyad member. At the same time, partner-focused symptoms in one dyad member increase partner-focused symptoms in the other dyad member.

These dyadic effects may result from several ROCD-related processes. For example, having one partner constantly question the relationship may cause the other partner to do the same (e.g., "He's unsure about this relationship. Am I sure about it?"). ROCD symptoms such as repeated reassurance seeking (e.g., "Do you love me?") may lead to an increase in partners' monitoring of their own internal states (i.e., "do I feel love towards him?") in response to repeated questioning. Similarly, compulsive comparisons of one partner may increase the likelihood of the other partner doing the same (e.g., "she keeps comparing me to her former boyfriend, but how does she compare to my former girlfriend?"). More generally, however, the emotional burden laid by one partner constantly questioning the other partner's character, appearance, or suitability may lead to increased personal stress and higher threat appraisals in the targeted partner, which, in turn, may lead to more ROCD symptoms in this partner. Finally, one partner's continuous doubting of the relationship may activate preexisting attachment insecurities in the other partner, thereby contributing to the development of ROCD symptoms in this partner.

7. ROCD and related constructs

We have argued that ROCD involves features that are unique to the relational domain as well as features that are common with other OCD symptoms. Yet, if ROCD is to be understood as a distinct phenomenon, it is essential to differentiate it from other related constructs. In this section, we review the conceptual and empirical links between relationship-centered OC symptoms and related constructs, such as worry and social anxiety. We also deal with the potential links between partner-focused OC phenomena and body-dysmorphic symptoms.

7.1. Relationship-centered OC symptoms and worries

Traditionally, relationships are considered to fall within the realm of general worries (Clark, 2004). It is important, therefore, to differentiate between relationship-centered OC phenomena and worry. Clinical experience and initial empirical findings suggest that relationship-centered obsessions can be differentiated from general worries in both content and form. Relationship-centered obsessions, by definition, focus on one's current feelings towards a partner, a partner's feelings towards oneself, and the rightness of a current or past relationship. In contrast, worry often relates to *future consequences* of *real situations* (Clark, 2004; e.g., "what will I do if I break up with my girlfriend?"). Like other forms of

obsessions, relationship-centered obsessions are experienced as more unwanted, intrusive, and unacceptable than normal worries and appear to be more strongly resisted. Clients often describe thoughts, questions, and doubts "springing up into their mind". These intrusions are perceived as exaggerated, having slight or no realistic basis, and as contradicting a person's strong feelings towards a partner. Relationship-centered obsessions are therefore less self-congruent, more likely to be associated with neutralizing efforts, and are perceived as less rational than worries. Furthermore, whereas worries commonly appear in verbal format, relationship-centered obsessions come in a variety of forms, including images, thoughts and urges.

There is initial empirical evidence supporting the differentiation between relationship-centered obsessions and general worries. In a recent study, Doron et al. (2013) showed only a small correlation (r=.21) between the ROCI and one of the most commonly used measures of general worry – the Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec 1990).

7.2. Relationship-centered OC symptoms and social anxiety

Both relationship-centered obsessions and social anxiety may relate to individuals' close relationships and affect interpersonal interactions. However, whereas relationship-centered obsessions concern a person's relational appraisals, feelings, and experiences, social anxiety concern a person's perceived functioning in interpersonal situations. For instance, a person with relationship-centered obsession is likely to be preoccupied with his/her own feelings towards a partner during or following a romantic encounter. In contrast, a person with social anxiety is more likely to fear his/her perceived incompetence in a future romantic encounter (i.e., anticipated anxiety), during the romantic encounter (am I sweating?) or following the romantic encounter (how did I look? Did I blush?). Social anxiety symptoms are more likely to include physical symptoms (e.g., blushing and sweating) than relationship-centered OC symptoms and tend to be associated with more self-congruent negative self-talk. Indeed, in a yet unpublished study with a community cohort (N=218), the ROCI showed only a small correlation (r=.22) with social anxiety symptoms, as measured by the Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998).

7.3. Relationship-centered OC symptoms and obsessional jealousy

Relationship-centered obsessions and obsessional jealousy may relate to romantic relationships. Obsessional jealousy, however, focuses on one's partner alleged unfaithful behaviors and infidelity, rather than the relationship experience. Unlike obsessive jealousy, relationship-centered obsessions do not assume the existence of a potential rival and are less likely to involve monitoring and checking of partner's behaviors for cues of infidelity.

Nevertheless, increased ROCD symptoms (e.g., doubts regarding the partner's love) may be associated with more obsessional jealousy symptoms (e.g., I have to check whether he loves me and not someone else). Moreover, ROCD and obsessional jealousy may share some vulnerability and maintenance factors such as self-sensitivity in the relational domain. Consistent with this, unpublished correlational data (n=218) showed a moderate correlation (r=.41) between the ROCI and jealousy driven checking behaviors, as measured by the checking subscale of the questionnaire of affective relationships (QAR; Marazziti et al., 2003).

7.4. Partner-focused OC symptoms and BDD

Partner-focused OC symptoms are defined by marked preoccupation and neutralizing behavior concerning perceived partner's deficits or flaws. Like in body dysmorphic disorder (BDD), partner-focused OC symptoms may focus on physical appearance. BDD, however, is defined by excessive preoccupation with one's own, rather than others' perceived physical flaws. Furthermore, although partner-focused OC symptoms may relate to the partner's physical features (also termed BDD by Proxy, see Josephson & Hollander, 1997; Greenberg et al., 2013), they often relate to other characteristics, such as social qualities (e.g., sociability) or personality attributes (e.g., morality). Finally, like other ROCD symptoms, partner-focused obsessive symptoms may occur in a variety of close relationships (parent–child; person-God etc.).

Nonetheless, both BDD and partner-focused symptoms involve hypervigilance to perceived defects or flaws and catastrophic interpretations of the consequences of such flaws. Esthetic sensitivity may also be common to both disorders (Lambrou, Veale, & Wilson, 2011). Therefore, moderate correlations between BDD and partner-focused OC symptoms should be expected. Consistent with these expectations, Doron et al. (2012b) have found a moderate correlation between BDD symptoms and the PROCSI total score (r=.39). Furthermore, besides the ROCI score, BDD symptoms were the only significant predictor of changes in PROCSI scores in a one month follow-up analysis. Importantly, BDD symptoms did not show a stronger correlation with the PROCSI appearance subscale (r=.32) than with the other PROCSI subscales, supporting a more generalized underlying common predisposition (Doron et al., 2012b).

7.5. Relationship-related obsessions and sexual orientation obsessions (HOCD)

For some individuals, relational doubts may be strongly linked with sexual orientation obsessions (i.e., doubt about one's sexual orientation or fears of becoming homosexual; e.g., Williams & Farris, 2011; Moulding, Aardema, & O'connor, this issue). For instance, one client described the transformation of his ROCD symptoms to sexual orientation obsession as follows: "It started with doubts about the relationship. I continuously asked myself whether I am in the right relationship. I would check and recheck whether I am attracted to her. After a while, I started thinking maybe it is not about her. Maybe I'm not attracted to women. Since then, I can't stop checking whether I'm aroused by woman and/or men and I really fear finding out I'm homosexual". A different client describe her HOCD symptoms leading to ROCD symptoms: "I started having obsessions about my sexual preference as an adolescent. As I grew older they abated. Now, however, when I am in a serious relationship, I continuously doubt my feelings for my partner and whether I am in the right relationship. Maybe I'm lesbian and I'm misleading him and myself".

Preoccupations in ROCD center on the relationship experience. HOCD involves fears centering on the self. As seen above, increased monitoring of internal states may play a crucial role in the relationship between ROCD and HOCD. Monitoring of internal states such as physical attraction and sexual desire may make such states less accessible thereby fueling relational and self-related doubts. Future research may shade further light on this link and its therapeutic implications.

8. Assessment and treatment

Worrying, having doubts or even being preoccupied with a particular relationship does not automatically suggest a diagnosis of ROCD. Like other OCD symptoms, relationship-related OC symptoms require psychological intervention only when they are causing significant distress and are incapacitating. Diagnosing ROCD is further complicated by the fact that such experiences,

even if distressing, may still be a part of the normal course of a still developing relationship, mainly during the flirting and dating stages, or reflect real life problems. Furthermore, treatment is frequently sought only during relational instability (e.g., increasing pressure from a partner, low relationship satisfaction) and ROCD is often comorbid with other disorders, such as depression, other anxiety disorders, and other OCD symptoms. Establishing that a person is suffering from ROCD; therefore, requires particular care.

8.1. Assessment

Relational obsessions usually begin in the early stages of a relationship and exacerbate as the relationship progresses or reach decision points (e.g., cohabitation, marriage). Clinicians should keep in mind that relationship obsessions exist and persist regardless of relationship conflict. When suspecting ROCD, initial evaluation should include a clinical interview to ascertain the diagnosis of OCD and coexisting disorders or medical conditions. It is strongly recommended to use structured interviews, such as the Mini International Neuropsychiatric Interview (MINI; Sheehan et al., 1998) or the SCID (First, Spitzer, Gibbon, & Williams, 1997), to ascertain disability and diagnosis of OCD. Additional instruments should be used to quantify ROCD symptom severity (e.g., the ROCI and the PROCSI), other OCD symptoms (e.g., OCI-R, Yale Brown Obsessive Compulsive Scale), OCD-related cognitions (e.g., Obsessive Beliefs Questionnaire; Molding et al., 2011), depression, anxiety, and Body Dysmorphic symptoms.

A thorough history would include the presenting problem(s), background of the problem(s), and personal history with specific emphasis on relational history, family history and environment and current relationship assessment. It is of outmost importance to gain a clear understanding of the nature, pattern, and duration of clients' symptoms within the current relationship context and in previous relationships. Level, frequency and themes of current relational conflict, strategies of resolving such conflicts, sexual functioning and satisfaction as well as perceptions of commitment and relationship expectations should be noted. Therapists should collect detailed information about triggers of obsessions, their frequency and duration, the expected feared outcome or worry about the obsessions, and the responses to these intrusions. Responses include emotions (e.g., anxiety, guilt), overt compulsions (e.g., checking, comparing, reassurance seeking), covert compulsions (e.g., thought suppression, monitoring of internal states, self-reassurance), and avoidance or safety behaviors.

8.2. Pharmacotherapy

There are no known studies as to the effectiveness of pharmacotherapy to ROCD symptoms. Our clinical experience shows, however, that high doses of SSRIs as accepted in the treatment of OCD (e.g., Montgomery, Kasper, Stein, Hedegaard, & Lemming, 2001) may lead to a reduction of ROCD symptoms for some individuals.

8.3. Psychosocial treatments

The effectiveness of psychosocial treatment for ROCD has yet to be tested. A successful therapeutic intervention, however, should be based on a theoretical understanding of the vulnerability factors and maintenance processes described above. We are currently developing a treatment manual that will address the maintaining processes and vulnerability factors of ROCD. Following current cognitive behavioral interventions for OCD, we believe such treatment should include assessment and information gathering, psycho-education and identification and challenging of dysfunctional thinking patterns, self-perceptions, and attachment-related fears and defenses. Exposure Response Prevention (ERP) and other behavioral experiments are believed to be very useful in this therapeutic process.

Psycho-education sets the tone for the rest of therapy. The psycho-education component should cover the cognitive model of OCD and ROCD (see Fig. 1). It is important to provide the client with the rationale for the therapeutic process and discuss the course of therapy. The influence of ROCD symptoms on decision making should then be addressed and the difference between obsessive thinking and problem solving clarified. In this context,

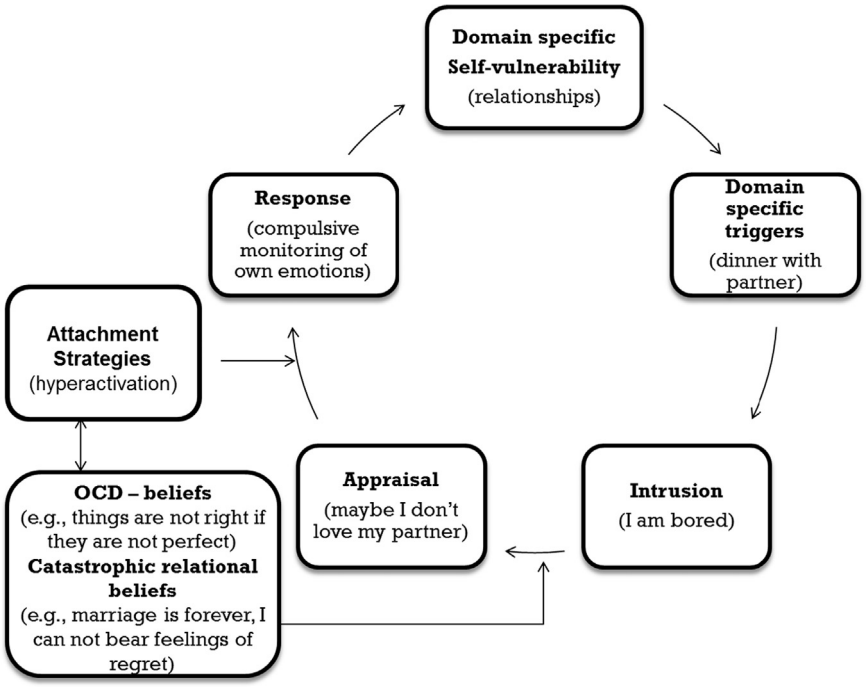

Fig. 1. The ROCD maintenance cycle.

the impact of ROCD symptoms on one's ability to experience feelings should be explored. Based on these understandings, it is best to reach an agreement to postpone decisions regarding the relationship until ROCD symptoms are significantly reduced.

Contingent on the client's approval, one should consider involving the partner in the therapeutic process. In such cases, partner's symptom accommodation should be assessed, ROCD psychoeducation provided, and strategies for reducing dyadic influences suggested.

Monitoring of obsessions and compulsions should assist the client and the therapist to manage the reduction of compulsions and avoidance behaviors. The cognitive component of ROCD treatment may include identification and challenging of OCD-related maladaptive beliefs (e.g., importance of thoughts, intolerance for uncertainty). It is also important to challenge catastrophic beliefs about relationships (e.g., "If I stay in a relationship I am not sure about, I will always be miserable"; "If I commit to this relationship, I will never be able to get out of it" or "if I leave this relationship, I will always regret it"). In this context, ERP tasks such as scripts related to fear of regret (e.g., finding yourself miserable with your partner in a few years and/or finding yourself miserable without the same partner), other feared scenarios (e.g., weddings) and in vivo exposure to "triggering" sites or movies (e.g., romantic comedies) may be useful. Many clients with ROCD describe fears of reenacting their parental relationship. When applicable, this information should be integrated in to the exposure scripts. An effective intervention may also address the meaning and consequences of increased monitoring of internal states. Suitable behavioral experiments for exemplifying the effects of excess monitoring may include in-session repetitive monitoring of internal states (e.g., feelings of "closeness" to the therapist).

Contingencies of self-worth on particular relational aspects (e.g., relationships, partner value) should be explicitly explored, such that the client understands the association between distress and perceived failure in these relational aspects. Effort should be given to identifying and expanding the rules of competence and boundaries of these relational sources of self-worth as well as to increase the dominance of other sources of self-worth (e.g., academic, physical).

Particular emphasis should be given to softening attachment worries and anxieties, mainly fear of abandonment (see Doron & Molding, 2009, for a description of Attachment-based CBT). Helpful strategies may include challenging the link between OCD-related beliefs and abandonment fears (e.g., "over-vigilance will decrease the likelihood of being abandoned"), using behavioral experiments to increase tolerance for abandonment-related fears (e.g., writing/ thinking "does my partner really love me" without asking the partner for reassurance), and addressing beliefs associating abandonment with low perceptions of self-worth (e.g., "I am not worth anything and will therefore be abandoned").

Many clients with ROCD prefer avoiding relational conflicts. Trying to avoid conflict, however, may exacerbate fears of future entrapment. Furthermore, conflict may be a result of ROCD symptoms, but also a trigger of relational obsessions. The link between ROCD symptoms and relational conflict should be assessed and addressed. Appropriate communication and conflict resolution skills should be taught and practiced using role playing for feared situations (i.e., potential conflictual interaction with a partner).

The goal of therapy is not to save the relationship, but to help the client reduce ROCD symptoms. ROCD symptom reduction is often associated with better understanding of one's own feelings and with improved decision making capacity. In case of need, however, problem solving technics and decision making strategies may be introduced to help the client with important relational decisions.

9. Summary

OCD is a debilitating disorder with a wide array of obsessional themes. While some OCD themes have been the subject of intense investigations leading to significant theoretical and clinical advancements, research on relationship-related obsessive–compulsive phenomena has only recently begun. In this paper, we presented relationship obsessive–compulsive disorder (ROCD), defined its main features, and described its phenomenology. Measures of ROCD symptom severity were presented and their associations with other OCD themes discussed.

Drawing on recent cognitive-behavioral models of OCD, social psychology and attachment research, we discussed the role of OCD-related beliefs, processes related to dysfunctional monitoring of internal states, and perceptions of relational commitment in the development and maintenance of ROCD. We then implicated pre-existing self-vulnerabilities and attachment insecurities in the exacerbation of common relationship worries into obsessions and evaluated the potential role of personality factors, societal influences, parenting, and family environments in the etiology and maintenance of ROCD symptoms. The relational and personal impact of ROCD symptoms and the reciprocal associations between relationship-centered and partner-focused OC symptoms were also discussed. Finally, we reviewed the conceptual and empirical links between ROCD symptoms and related constructs and suggested theoretically driven assessment and interventions procedures.

Although consistent with our theoretical model, this new body of research has several limitations. Many of the proposed factors hypothesized to be involved in ROCD are yet to be empirically evaluated. Furthermore, many studies have been conducted with non-clinical samples. Although non-clinical individuals experience OCD-related beliefs and symptoms, they may differ from clinical patients in the type and severity of symptoms and the resulting degree of impairment. Future ROCD research should include clinical samples. Examining different clinical groups would facilitate the identification of both general and specific factors associated with ROCD symptoms. Laboratory and longitudinal studies should further examine the hypothesized causal and correlational relationships proposed in this paper.

This conceptual framework has focused on a relatively new area of OCD related research. Our aim is to enhance our understanding of OCD phenomena by drawing attention to what we believe is an important OCD theme-relationships. We also identified possible factors that may lead to the development of ROCD. This, we hope, will enable a better understanding of the etiology of ROCD, its development, treatment, and even prevention.

References

Aardema, F., & O'Connor, K. (2007). The menace within: obsessions and the self. *Journal of Cognitive Psychotherapy*, *21*, 182–197.

Aardema F., Moulding. R., Radomsky. A. S, Doron. G, Allamby. J.. (2013). Fear of self and obsessionality: development and validation of the fear of self questionnaire. Journal of Obsessive- Compulsive and Related Disordersin press.

Abramowitz, J. S., McKay, D., & Taylor, S. (2008). *Obsessive–compulsive disorder: Subtypes and spectrum conditions*. Amsterdam: Elsevier.

Adams, J. M., & Jones, W. H. (1997). The conceptualization of marital commitment: An integrative analysis. *Journal of Personality and Social Psychology*, *72*(5), 1177–1196.

Allgood, S. M., Harris, S., Skogrand, L., & Lee, T. R. (2008). Marital commitment and religiosity in a religiously homogenous population. *Marriage & Family Review*, *45*(1), 52–67.

Amato, P. R. (2000). The consequences of divorce for adults and children. *Journal of Marriage and Family*, *62*(4), 1269–1287.

Amato, P. R. (2001). Children of divorce in the 1990s: An update of the Amato and Keith (1991) meta-analysis. *Journal of Family Psychology*, *15*(3), 355.

Angst, J., Gamma, A., Endrass, J., Goodwin, R., Ajdacic, V., Eich, D., & Rössler, W. (2004). Obsessive–compulsive severity spectrum in the community:

Prevalence, comorbidity, and course. *European Archives of Psychiatry and Clinical Neuroscience*, *254*(3), 156–164.
Barelds, D. P. H., & Dijkstra, P. (2011). Positive illusions about a partner's personality and relationship quality. *Journal of Research in Personality*, *45*, 37–43.
Bhar, S., & Kyrios, M. (2007). An investigation of self-ambivalence in obsessive–compulsive disorder. *Behaviour Research and Therapy*, *45*, 1845–1857.
Boeding, S. E., Paprocki, C. M., Baucom, D. H., Abramowitz, J. S., Wheaton, M. G., Fabricant, L. E., et al. (2013). Let me check that for you: symptom accommodation in romantic partners of adults with obsessive–compulsive disorder. *Behaviour Research and Therapy*, *51*, 316–322.
Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York: Basic Books.
Bowlby, J. (1982). *Attachment and loss: Vol. 1. Attachment* (2nd ed.). New York: Basic Books (Original ed. 1969).
Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment. In: J. A. Simpson, & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–76). New York: Guilford Press.
Caughlin, J. P., & Huston, T. L. (2006). The affective structure of marriage. In: A. L. Vangelisti, & D. Perlman (Eds.), *The Cambridge handbook of personal relationships* (pp. 131–156). New York: Cambridge University Press.
Clark, D. A., & Purdon, C. (1993). New perspectives for a cognitive theory of obsessions. *Australian Psychologist*, *28*, 161–167.
Clark, D. A. (2004). Cognitive-behavioral therapy for OCD. *Guilford Press.*
Dar-Nimrod, I., Rawn, C. D., Lehman, D. R., & Schwartz, B. (2009). The maximization paradox: The costs of seeking alternatives. *Personality and Individual Differences*, *46*(5), 631–635.
Davies, P. T., & Cummings, E. M. (1994). Marital conflict and child adjustment: an emotional security hypothesis. *Psychological bulletin*, *116*(3), 387–411.
Doron, G., & Kyrios, M. (2005). Obsessive compulsive disorder: A review of possible specific internal representations within a broader cognitive theory. *Clinical Psychology Review*, *25*, 415–432.
Doron, G., & Molding, R. (2009). Cognitive behavioral treatment of obsessive compulsive disorder: A broader framework. *The Israel Journal of Psychiatry and Related Sciences*, *46*, 257–263.
Doron, G., Molding, R., Kyrios, M., Nedeljkovic, M., & Mikulincer, M. (2009). Adult attachment insecurities are related to obsessive compulsive phenomena. *Journal of Social and Clinical Psychology*, *28*, 1022–1049.
Doron, G., Szepsenwol, O., Derby, D., & Nahaloni, E. (2012). Relationship-related obsessive–compulsive phenomena: The case of relationship-centered and partner-focused obsessive compulsive symptoms. *Psicoterapia Cognitiva e Comportamentale*, *18*, 3.
Doron, G., Sar-El, D., & Mikulincer, M. (2012). Threats to moral self-perceptions trigger obsessive compulsive contamination-related behavioral tendencies. *Journal of Behavior Therapy and Experimental Psychiatry*, *43*, 884–890.
Doron, G., Derby, D., Szepsenwol, O., & Talmor, D. (2012a). Tainted Love: Exploring relationship-centered obsessive compulsive symptoms in two non-clinical cohorts. *Journal of Obsessive–Compulsive and Related Disorders*, *1*, 16–24.
Doron, G., Derby, D., Szepsenwol, O., & Talmor., D. (2012b). Flaws and all: Exploring partner-focused obsessive–compulsive symptoms. *Journal of Obsessive–Compulsive and Related Disorders*, *1*, 234–243.
Doron, G., Szepsenwol, O., Karp, E., & Gal, N. (2013). Obsessing about intimate-relationships: Testing the double relationship-vulnerability hypothesis. *Journal of Behavior Therapy and Experimental Psychiatry*, *44*, *433–440*.
Emmelkamp, P. M., De Haan, E., & Hoogduin, C. A. (1990). Marital adjustment and obsessive–compulsive disorder. *The British Journal of Psychiatry*, *156*(1), 55–60.
First, M. B., Spitzer, R. L., Gibbon, M., & Williams, J. B. W. (1997). *Structured Clinical Interview for DSM-IV Axis 1 Disorders—Clinicians Version (SCID-CV)*. Washington, DC: American Psychiatric Press.
Fletcher, G. J. O., Simpson, J. A., & Thomas, G. (2000). Ideals, perceptions, and evaluations in early relationship development. *Journal of Personality and Social Psychology*, *79*, 933–940.
Foa, E. B., Huppert, J. D., Leiberg, S., Langner, R., Kichic, R., & Hajcak, G. (2002). The obsessive–compulsive inventory: Development and validation of a short version. *Psychological Assessment*, *14*, 485–496.
García-Soriano, G., Clark, D. A., Belloch, A., del Palacio, A., & Castañeiras, C. (2012). Self-worth contingencies and obsessionality: A promising approach to vulnerability? *Journal of Obsessive–compulsive and Related Disorders*, *1*, 196–202.
Greenberg, J. L., Falkenstein, M., Reuman, L., Fama, J., Marques, L., & Wilhelm, S. (2013). The phenomenology of self-reported body dysmorphic disorder by proxy. *Body Image*, *10*, 243–246.
Haslam, N., Williams, B. J., Kyrios, M., McKay, D., & Taylor, S. (2005). Subtyping obsessive–compulsive disorder: A taxometric analysis. *Behavior Therapy*, *36*, 381–391.
Hewitt, P., & Flett, G. (1991). Perfectionism in the self and social contexts: Conceptualization, assessment, and association with psychopathology. *Journal of Personality and Social Psychology*, *60*, 456–470.
Iyengar, S., Wells, R., & Schwartz, B. (2006). Doing better but feeling worse: Looking for the 'best' job undermines satisfaction. *Psychological Science*, *17*, 143–150.
Jekielek, S. M. (1998). Parental conflict, marital disruption and children's emotional well-being. *Social Forces*, *76*(3), 905–936.
Josephson, S. C., & Hollander, E. (1997). Body dysmorphic disorder by proxy. *Journal of Clinical Psychiatry*, *82*.
Koran, L. M. (2000). Quality of life in obsessive–compulsive disorder. *Psychiatric Clinics of North America*, *23*(3), 509–517.
Lambrou, C., Veale, D., & Wilson, G. (2011). The role of esthetic sensitivity in body dysmorphic disorder. *Journal of Abnormal Psychology*, *120*, 443.
Lazarov, A., Dar, R., Oded, Y., & Liberman, N. (2010). Are obsessive–compulsive tendencies related to reliance on external proxies for internal states? Evidence from biofeedback-aided relaxation studies. *Behaviour Research and Therapy* *48*(6), 516–523.
Lazarov, A., Dar, R., Liberman, N., & Oded, Y. (2012). Obsessive–compulsive tendencies and undermined confidence are related to reliance on proxies for internal states in a false feedback paradigm. *Journal of Behavior Therapy and Experimental Psychiatry*, *43*(1), 556–564.
Liberman, N., & Dar, R. (2009). Normal and pathological consequences of encountering difficulties in monitoring progress toward goals. In: G. Moskowitz, & H. Grant (Eds.), *The psychology of goals* (pp. 277–303). New York: Guilford Press.
Lydon, J. E. (2010). How to forego forbidden fruit: The regulation of attractive alternatives as a commitment mechanism. *Social and Personality Psychology Compass*, *4*(8), 635–644.
Meyer, T. J., Miller, M. L., Metzger, R. L., & Borkovec, T. D. (1990). Development and validation of the Penn State Worry Questionnaire. *Behaviour Research and Therapy*, *28*, 487–495.
Marazziti, D., DiNasso, E., Masala, I., Baroni, S., Abelli, M., Mengali, F., & Rucci, P. (2003). Normal and obsessional jealousy: A study of a population of young adults. *European Psychiatry*, *18*(3), 106–111.
Mikulincer, M., & Shaver, P. R. (2003). The attachment behavioral system in adulthood: Activation, psychodynamics, and interpersonal processes. In: M. P. Zanna (Ed.), *Advances in experimental social psychology*, Vol. 35 (pp. 53–152). New York: Academic Press.
Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York: Guilford Press.
Montgomery, S. A., Kasper, S., Stein, D. J., Hedegaard, K. B., & Lemming, O. M. (2001). Citalopram 20 mg, 40 mg and 60 mg are all effective and well tolerated compared with placebo in obsessive–compulsive disorder. *International Clinical Psychopharmacology*, *16*, 75–86.
Moulding, R., Aardema, F., & O'Connor, K. P. Repugnant obsessions: A review of the phenomenology, theoretical models, and treatment of sexual and aggressive obsessional themes in OCD. *Journal of Obsessive-Compulsive and Related Disorders*, (this issue).
Molding, R., Anglim, J., Nedeljkovic, M., Doron, G., Kyrios, M., & Ayalon, A. (2011). The Obsessive Beliefs Questionnaire (OBQ): Examination in non-clinical samples and development of a short version. *Assessment*, *18*, 357–374.
Murray, S. L., Holmes, J. G., & Griffin, D. W. (1996). The self-fulfilling nature of positive illusions in romantic relationships: Love is not blind, but prescient. *Journal of Personality and Social Psychology*, *71*, 1155–1180.
Murray, S. L., Griffin, D. W., Derrick, J. L., Harris, B., Aloni, M., & Leder, S. (2011). Tempting fate or inviting happiness? Unrealistic idealization prevents the decline of marital satisfaction. *Psychological Science*, *22*, 619–626.
Obsessive Compulsive Cognitions Working Group (1997). Cognitive assessment of obsessive–compulsive disorder. *Behaviour Research and Therapy*, *35*, 667–681.
Obsessive Compulsive Cognitions Working Group (2005). Psychometric validation of the Obsessive Beliefs Questionnaire: Factor analyses and testing of a brief version. *Behaviour Research and Therapy*, *43*, 1527–1542.
Olatunji, B. O., Williams, B. J., Haslam, N., Abramowitz, J. S., & Tolin, D. F. (2008). The latent structure of obsessive-compulsive symptoms: A taxometric study. *Depression and Anxiety*, *25*(11), 956–968.
Overall, N. C., Fletcher, G. J. O., & Simpson, J. A. (2006). Regulation processes in intimate relationships: The role of ideal standards. *Journal of Personality and Social Psychology*, *91*, 662–685. http://dx.doi.org/10.1037/0022-3514.91.4.662.
Rachman, S. (1997). A cognitive theory of obsessions. *Behaviour Research and Therapy*, *35*, 793–802.
Rachman, S. (1998). A cognitive theory of obsessions: Elaborations. *Behaviour Research and Therapy*, *36*(4), 385–401.
Ramos-Cerqueira, A. T. D. A., Torres, A. R., Torresan, R. C., Negreiros, A. P. M., & Vitorino, C. N. (2008). Emotional burden in caregivers of patients with obsessive-compulsive disorder. *Depression and Anxiety*, *25*, 1020–1027.
Rasmussen, S. A., & Eisen, J. L. (1992). The epidemiology and clinical features of obsessive compulsive disorder. *Psychiatric Clinics of North America*, *15*, 743–758.
Riggs, D. S., Hiss, H., & Foa, E. B. (1992). Marital distress and the treatment of obsessive compulsive disorder. *Behavior Therapy*, *23*(4), 585–597.
Rusbult, C. E., Van Lange, P. A. M., Wildschut, T., Yovetich, N. A., & Verette, J. (2000). Perceived superiority in close relationships: Why it exists and persists. *Journal of Personality and Social Psychology*, *79*, 521–545.
Rusbult, C. E. (1980). Commitment and satisfaction in romantic associations: A test of the investment model. *Journal of Experimental Social Psychology*, *16*(2), 172–186.
Ruscio, A. M., Stein, D. J., Chiu, W. T., & Kessler, R. C. (2008). The epidemiology of obsessive–compulsive disorder in the National Comorbidity Survey Replication. *Molecular Psychiatry*, *15*(1), 53–63.
Salkovskis, P. M. (1985). Obsessional-compulsive problems: A cognitive-behavioural analysis. *Behaviour Research and Therapy*, *23*, 571–583.
Schwartz, B., Ward, A., Monterosso, J., Lyubomirsky, S., White, K., & Lehman, D. R. (2002). Maximizing versus satisficing: Happiness is a matter of choice. *Journal of Personality and Social Psychology*, *83*(5), 1178–1197.
Shapira, O., Gundar-Goshen, A., Liberman, N., & Dar, R. (2013). An ironic effect of monitoring closeness. *Cognition & Emotion*, 1–9. http://dx.doi.org/10.1080/02699931.2013.794771 (ahead-of-print).
Sheehan, D. V., Lecrubier, Y., Sheehan, K. H., Amorim, P., Janavs, J., Weiller, E, et al. (1998). The Mini-International Neuropsychiatric Interview (MINI): The development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *Journal of Clinical Psychiatry*, *59*, 22–33.

Simon, H. A. (1956). Rational choice and the structure of the environment. *Psychological Review*, *63*, 129–138.
Sparks, E. A., Ehrlinger, J., & Eibach, R. P. (2012). Failing to commit: Maximizers avoid commitment in a way that contributes to reduced satisfaction. *Personality and Individual Differences*, *52*(1), 72–77.
Storch, E. A., Abramowitz, J. S., & Goodman, W. K. (2008). Where does obsessive compulsive disorder belong in DSM-V? *Depression and Anxiety*, *25*, 226–247.
Szepsenwol, O. Doron, G., &, Shahar, B. (2013). Letting it linger: Exploring the longitudinal effects of relationship-related obsessive–compulsive phenomena. Submitted for publication.
Tversky, A., & Shafir, E. (1992). Choice under conflict: The dynamics of deferred decision. *Psychological Science*, *3*, 358–361.
Veale, D. (2004). Advances in a cognitive behavioural model of body dysmorphic disorder. *Body Image*, *1*, 113–125.
Vikas, A., Avasthi, A., & Sharan, P. (2011). Psychosocial impact of obsessive–compulsive disorder on patients and their caregivers: A comparative study with depressive disorder. *International Journal of Social Psychiatry*, *57*(1), 45–56.
Wihlem, S., & Neziroglu, F. (2002). Cognitive theory of body dysmorphic disorder. In: R. O. Frost, & G. Steketee G (Eds.), *Cognitive approaches to obsessions and compulsions: Theory, assessment and treatment* (pp. 203–214). Oxford: Elsevier Press.
Wilhelm, S., Buhlmann, U., Cook, L. C., Greenberg, J. L., & Dimaite, R. (2010). A cognitive–behavioral treatment approach for body dysmorphic disorder. *Cognitive and Behavioral Practice*, *17*, 241–247.
Williams, M. T., & Farris, S. G. (2011). Sexual orientation obsessions in obsessive–compulsive disorder: Prevalence and correlates. *Psychiatry research*, *187*(1), 156–159.
Wu, P. L., & Chiou, W. B. (2009). More options lead to more searching and worse choices in finding partners for romantic relationships online: An experimental study. *CyberPsychology & Behavior*, *12*, 315–318.
Yang, M. L., & Chiou, W. B. (2010). Looking online for the best romantic partner reduces decision quality: The moderating role of choice-making strategies. *Cyberpsychology, Behavior, and Social Networking*, *13*(2), 207–210.
Zeelenberg, M. (1999). Anticipated regret, expected feedback and behavioral decision making. *Journal of Behavioral Decision Making*, *12*(2), 93–106.