Fear of self, doubt and obsessive compulsive symptoms

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ARTICLE INFO

ABSTRACT

Background and objectives: Following observations in the literature that obsessions often contain or imply negative evaluative information about the self, Aardema et al. (2013) recently developed a measure of feared-self relevant to OCD. The current study aimed to provide further examination of the relevance of such feared self-beliefs to obsessive compulsive processes − in particular whether they partially underlie doubt in OCD-relevant situations.
Method: Nonclinical participants (N = 463; 291 females; M_{age} = 25.17, SD = 7.47), were presented with three vignettes, related to washing, checking and non-OCD relevant themes, which assessed doubt through providing alternating sensory and possibility-based information.
Results: Higher levels of OCD symptoms and feared-self beliefs both significantly predicted both higher baseline levels of doubt and greater fluctuation in levels of doubt in both the contamination and checking scenarios, and to a much lesser extent in the control scenario. Feared-self beliefs did not predict fluctuation in doubt over-and-above OCD symptoms, consistent with a mediation model.
Limitations: The main limitation was the use of a non-clinical sample, although this allowed sufficient participant numbers to test hypotheses.
Conclusions: The findings provided further experimental support for reasoning processes in OCD, and suggested that feared self-beliefs may make individuals vulnerable to experiencing doubt. Additionally, these results suggested that individuals with high OCD symptoms and those with high feared self-beliefs are unable to recognise the improbable nature of possibility-based statements. Implications for treatment and theory are discussed.

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1. Introduction

Cognitive models of Obsessive Compulsive Disorder (OCD) have garnered considerable attention and have led to substantial advances in understandings of the disorder (Frost & Steketee, 2002). The most recognised of these is the cognitive appraisal model, which stipulates that intrusions are haphazard thoughts that are universally experienced (Salkovskis, 1985). It is only when these intrusive thoughts are appraised as holding adverse implications for the individual that obsessions develop, with resulting

actions such as compulsions serving to increase their frequency or salience (Clark, 2002). In contrast, the inference-based approach (IBA) is a more recent cognitive model that operates on the premise that obsessions are not normal random thoughts, but instead are inferences generated through inductive reasoning (O'Connor, Aardema, Bouthillier, et al., 2005; O'Connor, Aardema, & Pellisier, 2005). These inferences (e.g., "Maybe my hands are dirty") are then supported, strengthened and maintained by idiosyncratic narratives created by the individual, which carry strong emotional themes (O'Connor, Aardema, Bouthillier, et al., 2005; O'Connor, Aardema, & Pellisier, 2005). These narratives draw the individual away from sensory-based information (e.g., "I can't see any dirt"), towards the belief that a completely fictitious premise is plausible (e.g., "But germs are invisible, so my hands could be dirty"; Aardema et al., 2010). This form of reasoning, which is primarily characterised by a distrust of sensory information and a favouring

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of possibilities that negate reality, is termed inferential confusion (O'Connor & Robillard, 1995).

The construct of inferential confusion has been both operationalized and validated using the Inferential Confusion Questionnaire (ICQ; Aardema, Kleijer, Trihey, O'Connor, & Emmelkamp, 2006). Studies have found a significant relationship between the ICQ and OCD-symptoms in both clinical and nonclinical samples (e.g., Aardema, O'Connor, Emmelkamp, Marchand, & Todorov, 2005; Aardema, Radomsky, & O'Connor, 2008). Additionally, inferential confusion has been found to be the strongest predictor of OCD-symptoms, relative to established OCD–relevant beliefs, whilst controlling for negative mood (Aardema et al., 2008; Emmelkamp & Aardema, 1999). However, inferential confusion – which is primarily characterised by obsessional doubt – has rarely been examined outside of questionnaire-based research. Thus, whilst there is a growing body of evidence to support the IBA, further experimental validation for the role of inferential confusion in driving OCD-symptoms is required.

1.1. Obsessional doubt

Within the inference-based approach, obsessional doubt is regarded as the core feature of OCD, given that individuals are proposed to doubt their sensory information in favour of hypothetical possibilities (Aardema, O'Connor, Pelissier, & Lavoie, 2009). For example, O'Connor, Aardema, Bouthillier, et al. (2005), O'Connor, Aardema, and Pellisier (2005) reported the following sequence in an individual with OCD: "My kids were outside playing and I know it's dirty outside. Maybe they touched something dirty; and if they're dirty, then I am too. Then I'm going to make my house dirty; so I have to wash my hands" (p. 149). Here, the woman concludes on the premise of a purely subjective narrative that her hands are dirty, and then acts accordingly, despite there being no sensory-based evidence (O'Connor, Aardema, Bouthillier, et al., 2005; O'Connor, Aardema, & Pellisier, 2005). As the dirt is an imagined possibility, subsequent cleaning rituals can never satisfactorily be completed (O'Connor, Aardema, Bouthillier, et al., 2005; O'Connor, Aardema, & Pellisier, 2005). Due to a distrust of sensory information in OCD, the woman can stop her rituals only when she reaches a "feeling" of completion (Wu, Aardema, & O'Connor, 2009). Therefore, the IBA postulates that the individual does not react to stimuli that are present, but to what may possibly be there even though their senses suggest otherwise – and so, paradoxically, the individual "fears not what they can see but what they cannot" (O'Connor & Robillard, 1995, p. 890).

Despite the pivotal role of obsessional doubt in conceptualising OCD, current cognitive models of the disorder rarely consider doubt to be an independent construct (Grenier, O'Connor, & Belanger, 2010). Only recently has obsessional doubt been examined and operationalized experimentally in its relevance to OCD. In this recent study, Aardema et al. (2009) designed two vignettes to induce changes in the level of doubt – with each vignette leading up to a particular inference (e.g., that there was an accident). Participants were presented with alternating reality (i.e., sensory) based information (e.g., "you *see* a pothole in the road") and possibility-based information (e.g., "the pothole *may* not have been deep enough to cause the bump"). After each piece of information was presented, participants were asked to rate the probability that the inference had occurred. It was found that individuals with OCD ($n = 50$) were more influenced by possibility-based information, compared to nonclinical controls ($n = 22$), and as a result maintained a higher level of doubt. These results also indicate that doubt can be successfully operationalized according to the interplay between reality and possibility-based information (Aardema et al., 2009).

While limited by the small sample size, Aardema et al.'s (2009) study remains the only study to date that has experimentally examined doubt in this manner, and thus further experimental support for the IBA is required. Furthermore, the OCD-related vignette utilised in this study was not related to a specific symptom dimension of OCD. Therefore, the present study was interested in examining whether these findings generalised to vignettes that were specifically related to the most common subtypes of OCD – contamination and checking (Ball, Baer, & Otto, 1996). Finally, the current study was designed to investigate what underlies a person's tendency to believe OCD-relevant narratives – in particular, a growing body of work highlights that negative self-themes may be one possible underlying mechanism.

1.2. Self-themes in OCD

Self-themes have been implicated in both the cognitive appraisal and IBA models of OCD. Rachman (1997, 1998) proposed that underlying individuals' catastrophic misinterpretations of their repugnant thoughts was the belief that their thoughts reveal unwanted, hitherto hidden aspects of themselves. Other cognitive models of OCD have also focused on the role of self-perceptions. For example, Purdon and Clark (1999; Clark, 2004; Purdon, Cripps, Faull, Joseph, & Rowa, 2007; Rowa, Purdon, Summerfeldt, & Antony, 2005) focussed on the importance of ego-dystonicity in OCD, suggesting that unwanted intrusive thoughts that are contrary to the person's self-view are more likely to be interpreted as significant and threatening, and may lead to the individual questioning their self-concept (e.g., in response to an aggressive thought, believing that there is the possibility that I am dangerous). Put simply – "the more important something is, the worse it seems to have a thought about it" (Freeston & Ladouceur, 1998, p. 141).

Other workers have highlighted other self-related constructs. For example, Bhar and Kyrios (2007) suggested that an ambivalent or fragile self-view increases the likelihood that intrusions are interpreted as threatening, thereby exacerbating symptoms. García-Soriano, Clark, Belloch, del Palacio, and Castaneiras (2012) highlighted the involvement of self-worth contingencies in OCD (see also, Doron, Kyrios, Moulding, Nedeljkovic, & Bhar, 2007; Phillips, Moulding, Kyrios, Nedeljkovic, & Mancuso, 2011). Doron and Kyrios (2005; Doron, Kyrios, & Moulding, 2007; Doron, Moulding, Kyrios, & Nedeljkovic, 2008) argued that highly valued self-domains where the person lacks confidence may contribute to sensitivity to obsessions. Obsessional thoughts that threaten these "sensitive" self domains are more likely to become the object of appraisal, preoccupation and anxiety (Doron, Kyrios & Moulding, 2007; Doron, Kyrios, Moulding, Nedeljkovic, et al., 2007; Doron et al., 2008), particularly when coupled with poor emotional regulation such as in the form of dysfunctional attachment systems (Doron, Moulding, Kyrios, Nedeljkovic, & Mikulincer, 2009; Doron, Moulding, et al., 2012; Doron, Sar-El, & Mikulincer, 2012). Experimental studies also show that threat to specific self-domains (e.g., morality or relationships) may result in an increase in thematically-related (e.g., contamination and relationship-centred) obsessive-compulsive behavioural tendencies (i.e., Doron, Sar-El, et al., 2012; Doron, Szepsenwol, Karp, & Gal, 2013).

1.3. The feared self

In particular, many of these constructs implicate – in part or in full - the notion of the "feared self" – a construct that is an extension of Higgins' (1987) theory of self-discrepancy. Higgins proposed that there are three domains of the self: the actual, ought and ideal self. Inspired by this concept, the feared self – an entity postulated by Oyserman and Markus (1990) – was suggested as