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Obsessive Compulsive Disorder as Stress and Coping: Cognitive Models and Associated Treatments

Krysten Zator*

Obsessive-compulsive disorder (OCD), a debilitating mental illness, may be exacerbated and maintained by stress. Furthermore, the disorder may be conceptualized as maladaptive coping in relation to an absent or exaggerated perceived threat due to faulty appraisals of potentially distressing intrusive thoughts. Thus, using cognitive models, OCD is conceptualized using Lazarus and Folkman's (1984) Transactional Stress Model. Distress caused by obsessions, misinterpretations (primary appraisal) of these initial thoughts based on a set of misguided beliefs held by individuals with OCD, leads to engagement in largely ineffective and/or unnecessary compulsive strategies (coping) after learning previously that these strategies are briefly effective in reducing distress (secondary appraisal). This creates a cycle broken only through reappraisal of the initial thoughts, which is the goal of treatment. This conceptualization provides an understanding of how stress and coping are integral influences on the formation, persistence, and treatment of this disorder.

Troubling is the thought that one's own brain can turn on itself; the mind becoming a metaphorical torture chamber of illogical unpleasant thoughts and actions engaged in helplessly in response. Unfortunately for some, this is reality. Obsessive compulsive disorder (OCD) is a debilitating mental illness diagnosed when obsessions, "recurrent and persistent thoughts, urges, or images...experienced as intrusive and unwanted" (e.g., thoughts of contamination), and/or compulsions, "repetitive behaviours that an individual feels driven to perform in response to an obsession or according to rules" (e.g., cleaning), are displayed in an individual (American Psychiatric Association, 2013, p. 235). These symptoms create significant functional impairment in many areas, through avoidance of triggering situations and excessive time spent on obsessions and compulsions (APA, 2013).

Unfortunately, without treatment only 20% of individuals with OCD recover (APA, 2013), emphasizing the need for both effective and accessible treatment. In understanding this disorder, cognitive models focus on obsessions, characterized by the dysfunctional appraisals of intrusive thoughts believed to underlie this

disorder, as symptoms are unlikely to manifest in their absence (Rachman, 1997; Salkovskis, 1985). Treatments such as Cognitive Behavioural Therapy (CBT) and Exposure and Response Prevention (ERP) aim to correct these processes through altering these maladaptive cognitions (Foa, Yadin, & Lichner, 2012; Whittal, Woody, McLean, Rachman, & Robichaud, 2010).

Furthermore, stress has been implicated in both the onset and persistence of OCD (Rachman, 1998). Specifically, Morgado, Freitas, Bessa, Sousa, and Cerqueira (2013) found that compared to controls, individuals with OCD had higher levels of perceived stress, specifically in relation to severity of obsession symptoms. Therefore, connecting stress and obsessions, a transactional stress and coping model by Lazarus and Folkman (1984), in combination with cognitive theories of OCD can be used to understand both the process from intrusion to compulsion, as well as how stress and coping may influence the formation and maintenance of this disorder. First, an examination of Lazarus and Folkman's model (1984) will occur, followed by discussion of cognitive theories of Obsessive Compulsive

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Disorder alone and in combination with the aforementioned model as well as the presentation of an integrative model.

Lazarus and Folkman's Transactional Model (1984)

Lazarus and Folkman's Transactional Model (1984) discusses stress and coping, specifically how an individual may respond to a stressor in his or her environment. The model conceives stress as an interaction between individual and environment evaluated, "as taxing or exceeding his or her resources and endangering his or her well-being" (Lazarus & Folkman, 1984, p. 21). Conversely, coping is regarded as the cognitive and behavioural exertions engaged in, in response to the stressor. Coping is composed of two main goals: to address the environmental stressor and to resolve the emotional response; these processes are variable and specific to the situation at hand. The stress and coping process is largely decided by the available resources an individual has to deal with the stressor (Lazarus & Folkman, 1984). For instance, if a situation is deemed initially mildly threatening but the individual has no appropriate resources to cope, this may be perceived as more threatening and distressing than a more significant potential stressor accompanied by sufficient coping means.

Another essential element of the model, a cognitive appraisal is the process of evaluating an encounter based on the potential effect on the individual (Lazarus & Folkman, 1984). The idea behind this is the necessity to possess the ability to determine whether a situation is a threat or not. Upon encountering a potential stressor in the environment, an individual engages in primary appraisal. This involves assessing for how the stressor may affect the individual, or essentially what impact the problem may potentially have on the individual. Secondary appraisal also occurs, which consists of evaluating possible coping strategies. Lazarus and Folkman (1984) caution that these labels are

misnomers, as one may not necessarily follow the other but instead, interact in determining potential stress and coping evaluations. Followed by a coping strategy, these processes determine a situation to be neutral or threatening, advantageous under normal circumstances (Lazarus & Folkman, 1984). For instance, something might be deemed stressful based on not only how potentially stressful the situation may be, but what kind of resources are available for coping in the face of the situation. In individuals with OCD, an error in these processes occurs. Lazarus and Folkman (1984) discuss that the appraisal-coping dynamic is complex and thus, problems can arise if inappropriate appraisals are made. In relation to OCD, an individual may perceive a normal situation as a threat, and thus engage in unnecessary coping. As such, OCD symptoms may be conceptualized and understood using this relevant stress and coping model. In order to achieve this, an understanding of current popular cognitive theories of this disorder is necessitated.

OCD: Present Cognitive Theories, Stress, and Coping Integration

Anxiety, a core component of OCD, is seen as an individual's perception of specific stimuli as threatening, accompanied by the perception of an inability to cope (Thordarson & Shafran, 2002). Therefore, based on previous cognitive theories (Rachman, 1997, 1998; Salkovskis, 1985; Salkovskis, et al., 2000), OCD (i.e. obsessive and compulsive symptoms) can be conceptualized in terms of the Lazarus and Folkman (1984) stress model (see Figure 1). Interpretation of intrusions (obsessions) might be seen as primary appraisals of potential stressors, whereas compulsive efforts may be seen as coping methods, chosen due to secondary appraisal in which consideration of coping possibilities emphasizes prior success of these methods in reducing distress. Furthermore, prior research suggests that without intervention, this process strengthens and

perpetuates a cyclical process (Salkovskis et al., 2000).

Faulty Stress Appraisals

Regarding primary appraisal, the Obsessive Compulsive Cognitions Working Group (OCCWG, 1997) posits cognition as having three parts: intrusions, appraisals, and beliefs. Rachman (1997) suggests that intrusive thoughts are common in the general population. Individuals are generally able to dismiss these thoughts as unimportant; however, they cause clinical distress in individuals with OCD, suggesting that it is not the actual thought that is distressing, but how the individual interprets the thought (Rachman, 1997). Cognitive theories believe that the underlying problem in OCD is this faulty appraisal of intrusive thoughts (OCCWG, 1997; Rachman, 1997; Salkovskis, 1985). Various hypotheses for the occurrence of these incorrect appraisals exist. Rachman (1998) suggests that the development from thought to obsession is related to the meaning attached by the individual. The thoughts may be appraised as highly personally significant (Rachman, 1997, 1998; Salkovskis et al., 2000) or informed by specific dysfunctional beliefs held more strongly by those with OCD (OCCWG, 1997).

Connected to primary appraisal are these three main maladaptive beliefs, which involve incorrect thought appraisals of threat, responsibility, uncertainty, and importance (OCCWG, 1997). Lazarus and Folkman (1984) define beliefs as, “preexisting notions about reality which serve as a perceptual lens” (p.63). In addition, specifically in relation to appraisals, the researchers suggest that beliefs, “determine what is fact... ‘how things are’ in the environment, and they shape the understanding of its meaning” (Lazarus & Folkman, 1984, p. 63). Thus, these aforementioned dysfunctional beliefs, both individually and in combination, may influence interpretation of intrusive thoughts in response to a potentially stressful situation in OCD (OCCWG, 1997). This may

explain why these maladaptive appraisals occur, the significant subsequent distress associated with this process, and also the nature of the secondary appraisal process and resulting coping (OCCWG, 1997; Steketee, 2005). Regarding OCD symptoms, substantial support has been found for the higher prevalence of these beliefs in individuals with OCD versus the general population (Abramowitz, Khandker, Nelson, Deacon, & Rygwall, 2006; Garcia-Soriano & Belloch, 2013; Gwilliam, Wells, Cartwright-Hatton, 2004; Salkovskis et al., 2000).

The first belief domain is overestimation of threat and responsibility (Steketee, 2005). Responsibility overestimation is related to how intrusive thoughts about a possible aversive event may lead an individual to take personal responsibility for preventing the thought event from becoming a reality (Salkovskis, 1985; Salkovskis et al., 2000). Ultimately useless and ineffective, compulsions aimed at prevention of these events occur as a result of this perceived responsibility (Salkovskis et al., 2000). The threat overestimation tendency leads individuals to overvalue the probability of occurrence of events and their possible consequences (OCCWG, 1997). Normally individuals view situations as inherently safe unless proven otherwise, whereas individuals with OCD tend to perceive danger inherently (Foa et al., 2012).

The second belief domain concerns how individuals with OCD assign increased importance to their thoughts and feel the need to control them (Steketee, 2005). Regarding control, thought suppression may occur, a common neutralization and avoidance strategy (Foa et al., 2012). There are potential adverse consequences of suppression, such as exacerbating importance and frequency of thoughts, threat appraisals, and subsequent distress, in addition to preventing challenging maladaptive thinking (Belloch, Morillo, & Gimenez, 2004; Gwilliam et al., 2004; Marcks & Woods, 2007; Markowitz & Purdon, 2007).

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However, findings in this area are conflicting. Belloch, Morriolo, & Gimenez (2004) failed to find a statistically significant increase in intrusions following suppression of neutral thoughts, whereas Markowitz and Purdon (2007) found that significance appraisals led to increased distress and subsequent thought suppression, leading to an increase in subsequent thoughts and distress.

Rachman (1997) believed higher perceived thought significance to be a main contributor to obsessions. Furthermore, thought-action fusion (TAF), shown to increase intrusive thoughts, was related to this importance misappraisal (Shafran, Thordarson, & Rachman, 1996). Moral TAF involves believing that having a thought is associated with the moral implications of the thought occurring in reality, whereas likelihood TAF involves believing that having a thought increases the probability of the thought's content actually happening in reality (Shafran et al., 1996).

The third dysfunctional belief is the tendency towards perfectionism and intolerance of uncertainty (Steketee, 2005). Many individuals with OCD seek assurance and are uncomfortable with ambiguity and their ability to cope in such situations (Foa et al., 2012; Sarawgi, Oglesby, & Cougle, 2013). Compulsions may possibly serve the purpose of decreasing uncertainty about aversive events happening.

Furthermore, Lazarus and Folkman (1984) suggest three types of primary stress appraisals. Of relevance to OCD is threat, positively correlated with stress and involving harm or loss that has not yet happened but is expected (Lazarus & Folkman, 1984). Generally speaking, this normally allows for preemptive coping, which is advantageous under truly threatening situations (Lazarus & Folkman, 1984). However, in OCD, this is engaged in unnecessarily when potentially threatening consequences are incorrectly attached to non-

threatening thoughts. In addition, increased perceived threat interferes with cognitive functioning (Lazarus & Folkman, 1984), possibly disabling abilities to engage in problem-focused coping such as reappraisal of intrusive thoughts. This may explain why those with OCD tend to resort to emotion-focused coping, focusing on stress reduction instead of the source of the stress itself.

Relevant to OCD, Lazarus and Folkman (1984) recognize that some individuals may not understand why they appraise a stimulus as threatening or even that this appraisal has occurred. This lack of awareness may explain why these intrusive thought appraisals are often irrational in OCD, perhaps perceived to be threatening directly (e.g. likelihood Thought Action Fusion) or to pose a threat through interpretation (e.g. threat overestimation).

Misguided Coping: A Cyclical Process

In Lazarus and Folkman's (1984) model, appraisals lead to a coping method. In OCD, this coping process itself might perpetuate a cycle. Surprisingly, neutral thoughts are connected with negative consequences and distress in OCD, leading to engagement in misguided compulsive attempts to reduce this stress (Salkovskis et al., 2000). Garcia-Soriano and Belloch (2013) found that individuals with OCD endorsed more upsetting and maladaptive appraisals of intrusive thoughts (e.g. high significance), believed to increase frequency of subsequent thoughts, and engaged in more compulsions or avoidance to cope than control participants. Rachman (1998) suggested that intrusions and increasing frequency are related cyclically, with compulsive resolution of the obsession-induced distress maintaining the significance of thought, resulting in increased salience of subsequent intrusions.

Previous research supports the cyclical process. Although essentially ineffectual for their intended purpose as the initial thought appraisal was incorrect to begin with,

compulsions emphasize and strengthen negative associations tied to the initial thought, as they are successful in temporarily reducing distress, encouraging use in future thought encounters (Foa et al., 2012; Marcks & Woods, 2007; Rachman, 1997). This is problematic as maladaptive coping becomes connected with the reduction of stress. During the maladaptive coping response, when the feared consequence most likely does not occur, this is seen as confirmation of the successful prevention of the perceived threat. Therefore, a cycle of obsession and compulsion may be perpetuated, where connections between the thought, subsequent threat appraisal, and stress-reducing compulsion are enforced and strengthened as the individual learns that the compulsion provides relief. An example of this cyclical process is given in Figure 2 where thoughts of a loved one dying are coped with by engaging in a light switch compulsion.

For effective treatment and recovery, this cycle needs to be broken. Rachman (1997, 1998) suggested that if the initial appraisal is reappraised as neutral, thoughts lose their salience. In addition, Salkovskis et al. (2000) found that a decrease in responsibility beliefs led to a decrease in compulsions. Therefore, treatment methods challenge these initial dysfunctional appraisals and beliefs. Thus, the treatment process may represent Lazarus and Folkman's (1984) reappraisal, appraisal occurring in the presence of novel information. Three main treatment methods exist, resulting in reappraisal of faulty cognitions indirectly through reduction of negative affect, through challenging of cognitions, and through direct exposure to obsessions.

Treatment Methods

First, pharmacology appears to alter cognitions through reducing negative affect, related to evidence of higher thought misinterpretations in depressed individuals (Besiroglu, Cetinkaya, Selvi, & Atli, 2011;

Rachman, 1997). Besiroglu, Cetinkaya, Selvi, and Atli (2011) assessed the effects of pharmacological treatment of OCD, finding greater effectiveness in those with comorbid depression, evidenced by a larger reduction in OCD-related beliefs in these individuals. This negative affect reduction mechanism potentially allows for more adaptive appraisal of thoughts and easier dismissal of thoughts as non-threatening (Besiroglu et al., 2011).

Secondly, CBT, designed to modify maladaptive cognitions, is considered efficacious (Whittal et al., 2010). Whittal, Woody, McLean, Rachman, and Robichaud (2010) tested the effectiveness of obsession-focused CBT based on Rachman's (1997, 1998) cognitive theory of obsessions in a sample of OCD patients with very few or no compulsions. The technique was designed based on the main assumption of faulty appraisals of high personal significance underlying symptoms, aiming to both educate about the commonality of these thoughts and therefore irrelevance and unimportance of them, and alter assumptions about them (Whittal et al., 2010). Obsession and overall OCD severity scores, in addition to the target symptom personal significance appraisals, were lower in the CBT group versus the control treatment group (Whittal et al., 2010). Support for the effectiveness of this treatment was found, with more than half of CBT group individuals achieving clinical reduction in obsessions and overall symptom severity (Whittal et al., 2010).

Lastly, a form of CBT for individuals with obsessions and compulsions is ERP (i.e. exposure and response prevention), involving actual experience or realistic imagination of the obsession while preventing the associated compulsive response (Foa et al., 2012). Considered the most efficacious OCD treatment, it may be problematic to implement, as the process of undergoing ERP can be distressing (Foa et al., 2012). ERP changes cognitions after the fact, providing solid

evidence that the fears associated with the obsessions are unfounded and revealing that distress decreases in the absence of compulsive coping (Foa et al., 2012). ERP has been found to be successful in 63-90% of patients, however a substantial portion drop out (Lee & Rees, 2011).

Final Thoughts

In conclusion, cognitive models emphasize the faulty appraisals of potentially stressing intrusive thoughts and related maladaptive beliefs thought to underlie this disorder. Importantly, OCD may be seen as maladaptive coping in the presence of an absent or exaggerated threat due to these faulty appraisals. Therefore obsessions and compulsions can be conceptualized using Lazarus and Folkman's (1984) Transactional Model, whereby primary appraisal of an intrusive thought leads to the perception of threat and subsequent distress, causing the individual to engage in compulsions to cope, having previously learned that this is an effective way to reduce stress. To break this cycle, various treatment options successfully attempt to alter these incorrect initial cognitive processes.

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Figure 1.

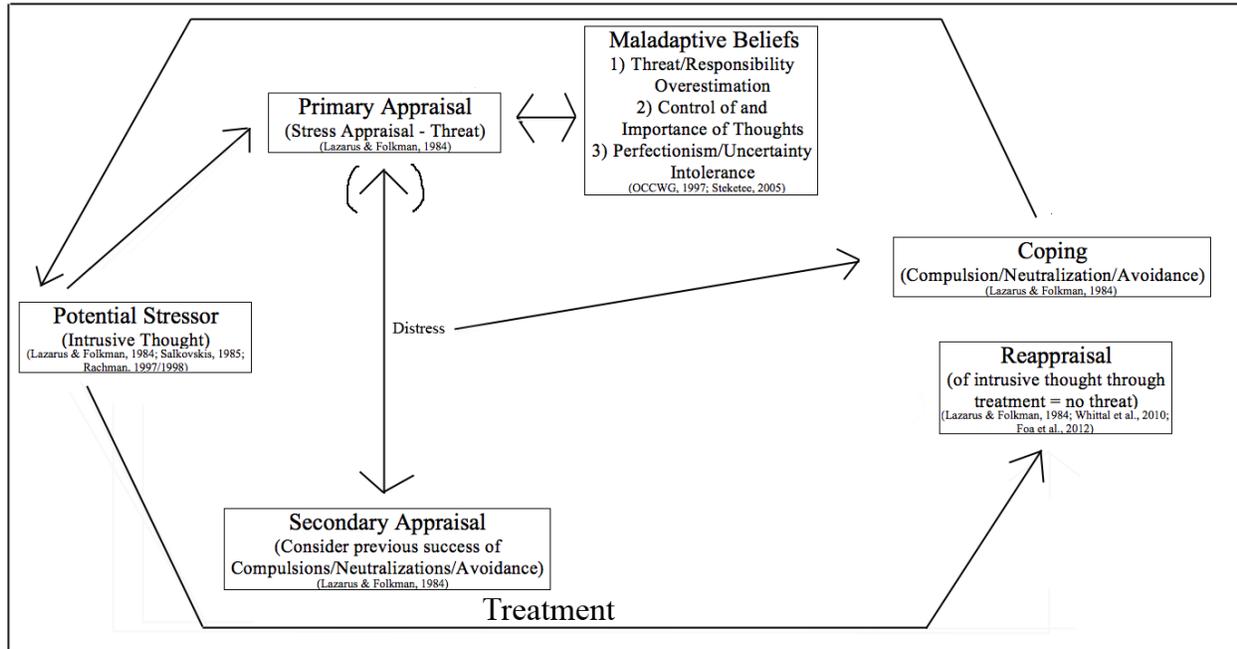


Figure 1. Obsessive Compulsive Disorder, thought to result from faulty appraisals of an initial intrusive thought, conceptualized using various cognitive theories (e.g., OCCWG, 1997; Rachman, 1997, 1998; Salkovskis, 1985) in the context of Lazarus and Folkman's (1984) transactional stress model. An individual with OCD encounters a potential stressor in the environment, resulting in an intrusive thought. In primary appraisal, this thought is then appraised incorrectly to be threatening possibly through maladaptive beliefs. The individual considers the success of prior use of maladaptive coping in secondary appraisal (e.g. compulsions or neutralization activity). Primary and secondary appraisal may interact, distress results, and the individual chooses to cope using the previously successful maladaptive strategy. This perpetuates a cycle. Conversely, treatment aims to alter cognitions such that the individual now reappraises the intrusive thought and potential stressor as non-threatening, requiring no coping action.

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Figure 2.

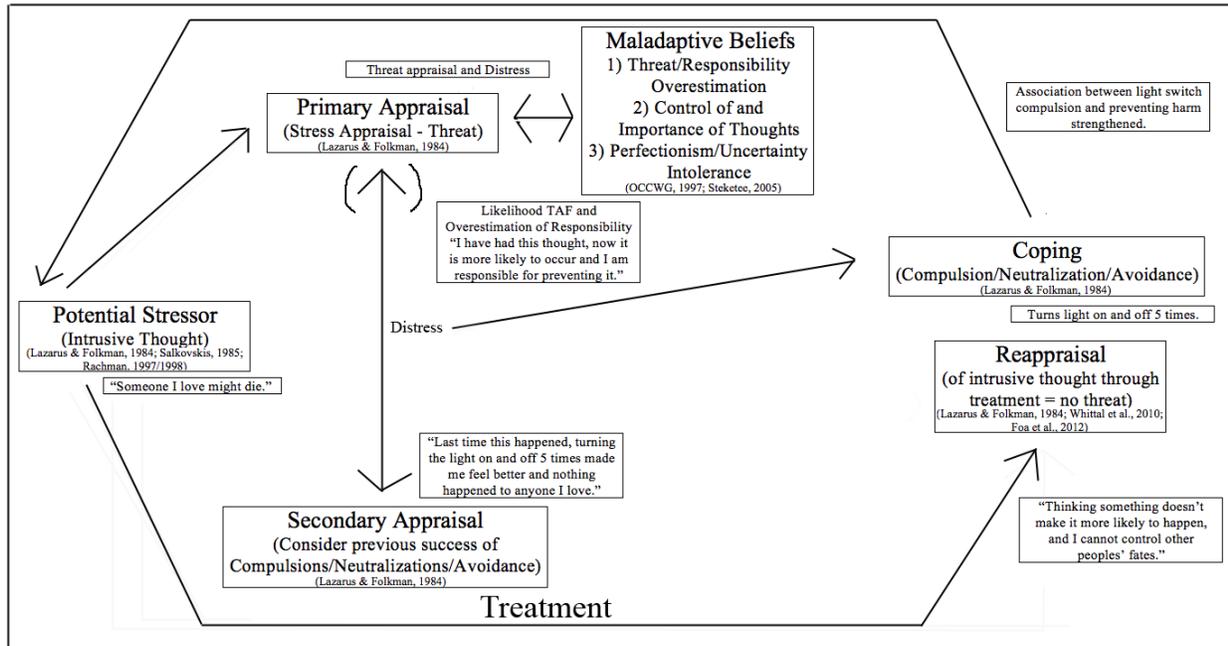


Figure 2. A hypothetical process of OCD whereby an intrusive thought about a loved one dying is coped with by engaging in a light switch compulsion. Likelihood TAF and overestimation of responsibility interact with primary and secondary appraisal leading to the compulsive coping activity. This strengthens the association between the light switch action and the reduction of stress associated with the initial thought, thereby perpetuating the cycle. Treatment changes cognitions through focus on maladaptive beliefs, altering the initial appraisal of the intrusive thought to be non-threatening.

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