

Autogenous Obsessions and Reactive Obsessions

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AUTOGENOUS OBSESSIONS AND REACTIVE OBSESSIONS

Obsessions are persistent ideas, thoughts, impulses, or images that are experienced as intrusive or inappropriate. They are generally accompanied by some compulsions the individual feels driven to perform in order to reduce distress or prevent some dreaded event (DSM-IV; American Psychiatric Association, 1994). Examples of common obsessions include recurrent thoughts about becoming contaminated, doubts about having made some terrible mistakes, aggressive or horrific impulses, perverted sexual or sacrilegious imagery, a need for symmetry, and so forth. Although they are all anxiety-provoking mental intrusions that occur against one's will, noticeable heterogeneity exists in numerous aspects. Let us consider the following cases of OCD sufferers.

Matt, a man in his late twenties suffered recurrent guilt-provoking obsessional thoughts involving sacrilege and obscene sexual acts for several years. The most torturous obsession involved thoughts of blurting out blasphemous ideas, such as "The Virgin Mary slept with God," in public. As much as he treasured piety as his prime life goal, this thought was experienced as devastating. Matt also experienced sexual obsessions which included repeated images of brutally raping women in public. These left him fraught with extreme guilt and shame. Consequently, he invented a number of mental strategies in order to dispel or neutralize the thoughts, including saying "stop" five times inwardly, thinking "safe" images to counter the obsessional thoughts, praying, repeating verses from the Bible, singing a part of a hymn five times, and so forth. In his effort to prevent his blasphemous thoughts, Matt remained on the lookout for objects or places that he associated with these thoughts, such as crosses, churches, dogs ("dog" is "God" spelled backward), female statues, and so forth. He also constantly avoided situations where he

might be alone with a woman for fear that his obsessions would be triggered or intensified. However, the harder he tried to push the obsessional thoughts away, the more intense they became.

Sheila, a middle-aged woman, had obsessions about making mistakes in the home that would endanger her two young children. One of her main concerns was that she would do something negligent that would result in harm (e.g., mistakenly poisoning the children). She was also obsessed with the idea that a broken piece of glass or metal would be brought into her home via someone's shoes or clothes, and that this would harm her children in some way. A very time-consuming ritual developed of excessive vacuuming whenever someone would enter the house. Moreover, she constantly checked her vacuum cleaner to ensure it was in perfect working condition. Sheila also had other recurrent thoughts of harm coming to her children resulting from her leaving the oven on or the doors unlocked. Her obsessions were always followed by reassurance-seeking from her family and ritualistic checking of all locks, windows, electronic appliances, the fire alarm, and water taps.

These two cases illustrate how obsessions can have varying foci of perceived threat and how patients' subsequent reactions to them can vary. In some instances the individual becomes distressed about the mere *presence* of the obsessional thought itself, and strives to remove or "neutralize" the thought. In other cases, the person becomes concerned about potentially harmful *consequences* associated with the thought, and thus engages in a preventative or corrective action that he or she believes will reduce the probability of such consequences.

The Autogenous and Reactive Subtype Model of Obsessions

Key Features: Threatening Thoughts vs. Threatening Thought Triggers

Lee and Kwon (2003) proposed two subtypes of obsessions: *autogenous* and *reactive* obsessions. *Autogenous obsessions* are highly aversive and unrealistic thoughts, images, or impulses that tend to be perceived as threatening in their own right. In other words, perceived threat is focused on the thoughts themselves. Autogenous obsessions usually take the form of thoughts, images, urges, or impulses with repulsive themes concerning unacceptable sexual behavior, violence and aggression, sacrilege and blasphemy, horrific scenes, and the like. Accordingly, such obsessions tend to be perceived as irrational and unacceptable (i.e., ego-dystonic). Autogenous obsessions might occur from “out of the blue” without clear antecedents, or be triggered by stimuli that are symbolically, unrealistically, or remotely associated with the thoughts. In the first case described above, Matt’s blasphemous obsession worsened and become associated with various symbolic cues of God and Mary. Another example is a woman who desperately attempts to avoid touching any objects beginning with the fourth letter in the alphabet “d” or its corresponding number “4” in order to cope with the obsession of harming her “Dad” (e.g., not touching doors, touching things 5 times not to end up being 4 times).

Reactive obsessions, in contrast, are somewhat realistic aversive thoughts, doubts, or concerns, in which the perceived threat is not the obsession itself, but rather some associated negative consequence that is *possible* but improbable. Reactive obsessions include thoughts, concerns, or doubts about contamination, mistakes, accidents, asymmetry, or disarray. They tend to be perceived as relatively realistic and likely to come true, thereby eliciting some corrective (usually overt) actions aimed at putting the associated uncomfortable situation back to a safe or desired state. For example, in the case of Sheila described

above, her perceived threat was not the obsessional thoughts per se, but rather the potential negative consequences associated with the thoughts. Consequently, her checking and cleaning rituals were aimed at rectifying the thought-triggering situation and preventing anticipated catastrophes rather than neutralizing the thought. Relative to autogenous obsessions, reactive obsessions are more likely to occur in reaction to explicit cues, which also correspond to specific core threats (e.g., potential contaminants, disarrayed/unsymmetrical objects, ordinary surroundings/activities potentially involving bad mistakes or accidents). Relative to autogenous obsessions, reactive obsessions typically evidence a more realistic link with their triggers. For instance, believing that one has been exposed to germs may serve as an invariable trigger for obsessions concerning contamination, and lead the person to strive to correct the triggering situation through cleaning or washing.

Different Cognitive Appraisals and Control Strategies

Obsessions, according to cognitive-behavioral formulations (Salkovskis, 1985; Rachman, 1997), persist due to (a) catastrophic misinterpretations of normally occurring mental intrusions and (b) ensuing neutralization and avoidance behavior. The autogenous-reactive model posits that these two types of obsessions are characterized by distinct threat foci (i.e., thoughts themselves vs. explicit thought triggers); and that each type is associated with a different pattern of appraisals and neutralizations. Autogenous obsessions are perceived as threatening in their own right and are thus associated with appraisals of exaggerated significance regarding their occurrence and context. Neutralization strategies (sometimes referred to as “control strategies”) are typically aimed at reducing the perceived threats associated with the presence of the thought itself. These typically take the form of mental strategies designed

to suppress, avoid, or neutralize the mental intrusion itself. Overt rituals performed in response to autogenous obsessions are more likely to be somewhat magical, superstitious, or unrealistic.

In contrast, reactive obsessions are associated with threatening external situations and stimuli which tend to evoke the obsessional anxiety. Accordingly, cognitive appraisals often center on the probability and severity of the threat associated with such triggers. Neutralization is focused on rectifying the unsafe and distressing aspects of the triggering situations or stimuli and typically involves ritualistic behavior such as checking to ensure no mistakes or accidents, and washing to remove suspected germs or to prevent disease. Thus, overt rituals performed in response to reactive obsessions are likely to take the form of problem-solving behaviors in an attempt to change (i.e., reduce the threat value of) the distressing situation rather than divert attention away from the obsessional thoughts themselves. Table 1 summarizes the major distinctions between the two subtypes.

 Insert Table 1 about here

Validity of the Autogenous-Reactive Taxonomy

In this section, we provide research evidence supporting the proposed distinction between autogenous and reactive obsessions. This work, conducted primarily by Lee and colleagues, includes a series of studies designed to test the hypothesized differences between the two proposed obsession subtypes.

Differences in Threat Focus, Appraisals, and Neutralization Strategies

Lee and Kwon (2003) conducted two independent studies with large nonclinical student samples. In Study 1, 370 college students were administered the Revised Obsessional Intrusion Inventory (Purdon & Clark, 1993), which evaluates

the frequencies of a variety of obsessional thoughts. Exploratory and confirmatory factor analyses on the 52 items of the ROII yielded two distinct factors that highly corresponded to autogenous (e.g., Thoughts of stabbing one of family members, thoughts of having sex in a public place, etc.) and reactive (e.g., thoughts of leaving the water taps running in the house, thoughts of contracting a fatal disease from touching things strangers have touched, etc.) obsessions. Participants were also asked to select their primary (most significant) obsessional thought from the 52 items of the ROII. The subtype of this primary (nonclinical) obsession was determined on the basis of the demonstrated autogenous-reactive factor structure. Next, participants with primary autogenous obsessions were compared to those reporting reactive obsessions with respect to emotional responses and cognitive appraisals of these types of intrusive thoughts. Results revealed that participants with the autogenous subtype found their intrusions more unacceptable, experienced more associated feelings of guilt, and felt it was more important that they control these thoughts, compared to participants with the reactive subtype. In contrast, those with the reactive subtype scored higher on worry and probability that the thought may come true.

In Study 2, 244 college students were administered a revised version of the ROII designed to more thoroughly examine appraisals and control strategies in response to their primary obsession (Lee & Kwon, 2003). Consistent with the autogenous-reactive distinction, results revealed that (a) in response to autogenous obsessions, participants' distress and threat perception were more focused on the presence of the thoughts themselves, and they reported using more thought control strategies that served to divert attention away from the thoughts (e.g., thought stopping, distraction), and (b) in response to reactive obsessions, participants' perceived threat was more focused on anticipated harm or uncomfortable

external conditions associated with the thoughts, and they reported using more confrontational control strategies designed to change these external conditions (e.g., checking, washing).

These findings suggest that the conceptually driven taxonomy was supported by the latent structure of obsessional experiences reported from college students. Differences in appraisals and control strategies also suggest that the two obsession subtypes have different threat foci (i.e., thoughts themselves vs. external situations).

Lee and his colleagues sought to replicate the findings from Lee and Kwon (2003) with clinical samples of OCD patients (Lee, Kwon, Kwon, & Telch, 2005). Thirty OCD patients were interviewed to identify their primary obsessions, which were then independently classified into either the autogenous (N=14) or reactive subtype (N=16) by three doctoral students in clinical psychology. The raters showed excellent inter-rater agreement in making such classifications (Kappa coefficient = .96). Patients' emotional reactions, cognitive appraisals, and control strategies in response to their primary obsessions were also compared between those displaying the autogenous subtype and those displaying the reactive subtype as their primary obsession. Results revealed that autogenous obsessions triggered more guilty feelings, and that the occurrence of the thoughts themselves was perceived as highly threatening as compared to reactive obsessions. Participants with autogenous obsessions also placed greater importance on eliminating (suppressing) their obsessional thoughts and were more likely to employ strategies of thought control in which the primary focus centered on diverting attention away from the thoughts (e.g., thought stopping, distraction).

In contrast, patients with primary reactive obsessions reported that their obsessions elicited more worries and greater concerns that the thought might come true relative to patients with the autogenous subtype of obsessions. Moreover,

patients with reactive obsessions reported a greater sense of responsibility to prevent harm and were more likely to engage in overt rituals such as checking or washing that aimed to correct the situations associated with the thoughts, or checking the rationality of the thoughts. Overall, these findings from a clinical sample of OCD patients are highly consistent with those reported from Lee and Kwon's (2003) student samples. Taken together, these studies suggest that the two proposed subtypes of obsessions differ with respect to (a) the foci of perceived threat, and (b) how the individual responses to such thoughts (appraisals and neutralization strategies).

Phenomenological Differences between Autogenous Obsessions, Reactive Obsessions, and Worries

Lee and colleagues hypothesized a continuum in which reactive obsessions fall between autogenous obsessions and worry with respect to several characteristics (Lee et al., 2005; see Figure 1). To test these predictions, nonclinical college students (N=435) were administered a battery of instruments, including the ROII, the short form of the Worry Domain Questionnaire (WDQ; Stöber & Joormann, 2001), the Thought Control Questionnaire (TCQ; Wells & Davies, 1994), and the Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990). Participants were asked to select a primary mental intrusion from the autogenous or reactive factor of the ROII, or from the WDQ. This primary mental intrusion was then identified as falling into one of the following three categories: (a) autogenous obsession, (b) reactive obsession, or (c) worry. Participants were also administered the Thought Examination Scale (TES) constructed by the authors to examine several characteristics of the primary mental intrusions, including the form of the thought, the appraisal of its content, perceptions of how the thought is triggered, and the thought's persistence.

Overall, results were quite consistent with predictions arising from the autogenous-reactive model. First, a markedly different pattern of correlations emerged between autogenous and reactive obsessions. Compared to autogenous obsessions, reactive obsessions were more strongly associated with worries. Moreover, after controlling for depression and trait anxiety, only reactive obsessions were significantly associated with both of the worry indices. Between-group comparisons on the TES also provided support for the continuum hypothesis: (a) relative to worries, autogenous obsessions were perceived as more bizarre, more unacceptable, and less likely to come true; (b) autogenous obsessions were more likely to take the form of impulses, urges, or images, whereas worries were more likely to take the form of doubts, apprehensions, or thoughts; (c) worries were characterized more by awareness and identifiability of thought triggers; and (d) worries lasted longer than autogenous obsessions, with reactive obsessions falling in between. Finally, those participants reporting reactive obsessions or worries as their primary intrusion were found to use the Worrying thought control strategy, as measured by the TCQ, more often than those reporting autogenous obsessions as their primary mental intrusion. This suggests that compared to autogenous obsessions, reactive obsessions are more similar to worries with respect to several thought characteristics.

Taken together, the data reviewed above support the hypothesis that the three types of mental intrusions fall on a continuum with respect to the various characteristics examined. The differences between worries and autogenous obsessions seem to be more striking than the differences between worries and reactive obsessions. These data provide further support for the proposed taxonomy. Moreover, they are in line with previous findings that have highlighted the differences between obsessions and worries (Langlois et al., 2000a, b;

Wells & Morrison, 1994; Turner et al., 1992), replicating previous findings that worry is perceived as more realistic, less ego-dystonic, more persistent, and more verbally oriented than are obsessions. The continuum hypothesis proposed by Lee et al. (2005), however, has yet to be examined with samples reporting clinical levels of obsessional and worry symptoms.

The Autogenous-Reactive Taxonomy and Features of OCD

In the preceding sections, we described key features of autogenous and reactive obsessions, along with supporting research evidence. As an extension of this model, Lee and colleagues have provided preliminary evidence suggesting that the autogenous-reactive distinction could serve to identify two subgroups of OCD patients differing with respect to several OCD-related domains, including symptom profiles, dysfunctional beliefs, and associated personality features. Research evidence for each of these domains will be briefly reviewed in this section.

Differential Associations with OCD symptoms

Based on the earlier findings that the two obsession subtypes differ with regard to their threat foci and associated neutralizations (Lee & Kwon, 2003; Lee et al., 2005), Lee and colleagues hypothesized that the autogenous subtype is most strongly associated with covert or ideational symptoms of OCD (i.e., obsessions) and that the reactive subtype is most strongly associated with overt, behavioral OCD symptoms (i.e., compulsive rituals). To test this hypotheses, Lee & Telch (2005a) examined the association between the autogenous/reactive subtype and OCD symptoms in a large sample of undergraduate students (n=932) who were administered a packet of instruments, including the ROII, Beck Depression Inventory (BDI; Beck, Ward, Mendelsohn, Mock, & Erlbaugh, 1961), State-Trait Anxiety Inventory-Trait version

(STAI-T; Spielberger, Grosuch, Luchere, Vagg, & Jacobs, 1983), and the Obsessive-Compulsive Inventory-Revised (OCI-R; Foa et al., 2002). The OCI-R taps six empirically derived dimensions of OCD symptoms: Checking, Hoarding, Neutralizing, Obsessing, Ordering, and Washing. Autogenous and reactive obsession scores were computed from the ROII based on the factor structure previously demonstrated (Lee & kwon, 2003). Hierarchical regression analyses revealed that, in predicting autogenous obsessions, the six subscales of the OCI-R explained an additional 3.9% of the variance after controlling for the effects of general depression and anxiety. Of the six subscales, Obsessing emerged as the only significant predictor of autogenous obsessions. In contrast, in predicting reactive obsession scores after controlling for depression and anxiety, the six OCI-R subscales explained an additional 21.3% of the variance. Of the six subscales, Checking, Ordering, and Washing emerged as significant predictors of reactive obsessions. These findings support the predictions derived from the autogenous-reactive taxonomy. Moreover, given that most of the OCI-R items (and subscales) assess overt rituals, it is no wonder that the OCI-R subscales explained greater variance in reactive obsessions than in autogenous obsessions.

In a related study (Lee & Telch, 2005b), 460 college students were administered a battery of instruments tapping a wider range of OCD symptoms. Measures included the Symmetry Ordering and Arrangement Questionnaire (SOAQ; Radomsky & Rachman, 2004), the Vancouver Obsessive Compulsive Inventory (VOCI; Thordarson et al., 2004), the ROII, and the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) symptom checklist of obsessions. The SOAQ is a 20-item self-report measure assessing ordering, arranging, and the need for symmetry and exactness in the placement of objects. The VOCI is a 55-item OCD symptom measure consisting of 6 subscales:

Contamination, Checking, Obsessions, Hoarding, Just Right, and Indecisiveness.

Autogenous and reactive obsessions scores computed from the ROII were separately regressed on the subscales of the VOCI and the total scores of the SOAQ. Results revealed that the Obsessions subscale of the VOCI emerged as the only significant predictor of autogenous obsessions, whereas the Contamination, Checking, and Just Right subscales of the VOCI and the total score of the SOAQ emerged as significant predictors of reactive obsessions. In order to rule out the possibility that these findings were limited to the use of a particular instrument (i.e., the ROII), the authors sought to replicate these findings based on autogenous/reactive obsessions scores computed from the Y-BOCS obsession checklist. Four doctoral students were provided a one-page description of the autogenous-reactive model of obsessions. They were then asked to rate each item in the Y-BOCS obsession checklist as either “autogenous”, “reactive”, or “unclassifiable”. Results demonstrated that the large majority (92%, 34 out of 37) of these obsessions were reliably classified as either autogenous or reactive with good interrater-reliability (Kappa = .85; 20 autogenous obsessions and 14 reactive obsessions). The types of obsessions deemed “unclassifiable” were included in the miscellaneous or somatic categories of the Y-BOCS checklist. Hierarchical regression analyses similar to those based on the ROII were then performed to predict autogenous/reactive scores derived from the Y-BOCS. Again, the Obsessions subscale of the VOCI emerged as the only significant predictor of autogenous obsessions, whereas the Contamination and Hoarding subscales of the VOCI, and the total score of the SOAQ were predictive of the reactive obsessions.

Lee and colleagues (2005) also examined the association between autogenous and reactive obsessions and different OCD symptoms in a clinical sample of OCD patients. Twenty-seven

OCD patients were classified as either having primary obsessions of the autogenous subtype (AOs, N=13) or primary obsessions of the reactive subtype (ROs, N=14). They were then administered a packet of instruments, including the ROII, the Padua Inventory (PI: Sanavio, 1988), and the Maudsley Obsessional-Compulsive Inventory (MOCI: Hodgson & Rachman, 1977). The ROII was used to reflect the overall severity of obsessional symptoms by its total scores. The PI presents four subscales: (a) Impaired Control over Mental Activities (i.e., lower ability to remove undesirable thoughts, difficulties in simple decisions and doubts, ruminative thinking about low-probability danger, etc.); (b) Becoming Contaminated (i.e., excessive hand washing, stereotyped cleaning, overconcern with dirt, worries about unrealistic contaminations, etc.); (c) Checking Behavior (i.e., repeatedly checking doors, gas, water taps, letters, money, numbers, etc.); and (d) Urges and Worries of Losing Control of Motor Behavior (i.e., urges of violence against animals or things, impulses to kill oneself or others without reason, fear of losing control over sexual impulse, etc.). The MOCI also taps five different dimensions of OCD symptoms (i.e., Checking, Washing, Slowness, Doubting, and Rumination).

Results revealed that compared to patients with primary reactive obsessions, those with primary autogenous obsessions displayed significantly higher total scores on the ROII, which indicates greater severity of obsessional ideation. In contrast, patients with reactive obsessions scored significantly higher on the MOCI, a measure that mainly taps overt compulsions. The PI, however, which measures both ideational and behavioral symptoms of OCD, yielded no significant group differences. Another multivariate analysis on the subscales from the MOCI and the PI revealed that patients with reactive obsessions displayed more overt behavioral symptoms of OCD than did patients with primarily autogenous obsessions as

indicated by their higher scores on the Checking and Washing subscales of the MOCI, as well as the Checking Behaviors subscale of the PI. In contrast, patients with primary autogenous obsessions scored significantly higher on the Urges and Worries of Losing Control subscale of the PI.

Taken together, these findings suggest that reactive obsessions are more likely to be associated with overt OCD symptoms, whereas autogenous obsessions are more likely to be associated with obsessional, ideational OCD symptoms.

Differential Associations with Dysfunctional Beliefs

Lee and colleagues (2005) also examined the hypothesis that OCD patients with primary autogenous and reactive obsessions would evidence differential patterns of obsessional (dysfunctional) beliefs, as measured by the Obsessional Belief Questionnaire (OBQ; OCCWQ, 2001). Specifically, they predicted that compared to patients whose primary obsession was autogenous, those with reactive obsessions would score higher on the belief domains of Inflated Responsibility (i.e., dysfunctional beliefs about one's power to cause or prevent harm), Threat Overestimation (i.e., exaggerations of the probability or severity of harm), Perfectionism (i.e., beliefs that a perfect solution to every problem is possible), and Intolerance of Uncertainty (i.e., the perception of being unable to cope with unpredictable or ambiguous situations) because these underlying beliefs may render the individual susceptible to exaggerated potential harms, imperfect conditions, catastrophization of anticipated consequences, or inflated personal responsibility (i.e., concerns central to the reactive subtype). In contrast, it was hypothesized that patients with primary autogenous obsessions would score higher than those with primary reactive obsessions on the belief domains of Control of Thoughts (i.e., dysfunctional beliefs about the ability and importance of controlling intrusive thoughts) and Importance of Thoughts (i.e.,

dysfunctional beliefs about the meaning of intrusive thoughts) since these beliefs may make the person more likely to perceive one's unwanted thoughts to be threatening and engage in an ineffective struggle with the thoughts.

To this end, Lee and colleagues administered the OBQ to 27 OCD patients, 13 of whom reported autogenous obsessions and 14 of whom reported reactive obsessions as primary symptoms (Lee, Kwon, et al., 2005). Consistent with predictions, multivariate analyses demonstrated that those with reactive obsessions were more likely to endorse beliefs indicating intolerance for uncertainty, inflated sense of responsibility, and perfectionism. However, those with autogenous obsessions did not differ from those with reactive obsessions on Control of Thoughts and Importance of Thoughts. It may be that patients with primary reactive obsessions also consider such mental intrusions troublesome even though their perceived threat is more focused on external situations than on the thoughts themselves. OCD patients may generally consider it *desirable* to exert complete control over their mental intrusions. Overall, these data suggest that the two subgroups of OCD patients classified based on the autogenous-reactive taxonomy differ with respect to dysfunctional beliefs related to OCD. These findings, however, need to be replicated with larger samples of OCD patients using a more psychometrically sound instrument.

Associations with Different Personality Features

Lee and colleagues also hypothesized that autogenous/reactive obsessions are associated with different personality features.

Reactive Obsessions and Perfectionistic Personality Features. A number of studies have demonstrated the relationship between perfectionistic personality features and OCD (e.g., Bouchard et al., 1998; Frost and Steketee, 1997). Lee and colleagues hypothesized that compared to

autogenous obsessions, reactive obsessions would be more strongly associated with perfectionistic personality features, suspecting that individuals with primary reactive obsessions would display exceedingly high and rigid standards, and strive harder to organize and control their environments to ensure that they are not in unsafe or undesired situations. To test this hypothesis, Lee and colleagues (Lee et al., 2005) compared 13 patients with primary autogenous obsessions and 14 with primary reactive obsessions on the Multidimensional Perfectionism Scale (MPQ; Frost et al., 1990) administered as a part of the instrument battery (Lee et al., 2005). This measure consists of six subscales: (a) Concern Over Mistakes (i.e., negative reactions to mistakes and a tendency to interpret mistakes as equivalent to failure), Personal Standards (i.e., a tendency to set excessively high standards and place extreme importance on these high standards for self-evaluation), Parental Expectations (i.e., a tendency to believe one's parents set very high goals), Parental Criticism (i.e., the perception that one's parents were or are overly critical), Doubts about Actions (i.e., a general dissatisfaction with or uncertainty about the quality of one's effort or that one has chosen the right course of action), and Organization (i.e., a tendency to emphasize orderliness and precision in daily tasks). Consistent with prediction, patients with primary reactive obsessions reported significantly higher scores on Concern over Mistakes, and Personal Standards relative to those with primary autogenous obsessions and also scored higher on Organization, which was marginally significant. These findings suggest that OCD patients whose primary obsession is the reactive type are more likely to interpret mistakes as equivalent to failure, believe that one will lose others' respect contingent on failure, set very high standards for self-evaluation and excessively adhere to orderliness and precision in daily tasks (Lee et al., 2005).

Autogenous Obsessions and Schizotypal Personality Features. Lee and colleagues also hypothesized that compared to reactive obsessions, autogenous obsessions would be more strongly linked to schizotypal personality features such as magical thinking and unusual perceptions. They postulated that autogenous obsessions are more strongly associated with aberrational thinking/perception given the bizarre thought content involving inappropriate sexual, aggressive, or religious thoughts, images, urges, or impulses that appear similar to schizotypal thinking.

To test this hypothesis, a large number of college students (N = 932) were administered a packet of instruments consisting of the ROII, BDI, STAI-T, OCI-R and the Schizotypal Personality Scale (STA; Claridge & Broks, 1984) - a widely used 37-item self-report measure designed to identify a general psychosis-proneness by assessing a multidimensional set of schizotypal traits. In accordance with the current multidimensional conceptualization of schizotypy (Lenzenweger, 1999; Rossi & Daneluzzo, 2002), the STA assesses three robust factors: (a) Magical Thinking; particularly the belief in psychic phenomena, (b) Unusual Perceptual Experiences, and (c) Paranoid Suspiciousness. In particular, we predicted that Magical Thinking and Unusual Perceptual Experiences would be significantly associated with autogenous obsessions, but not with reactive obsessions.

Consistent with our predictions, hierarchical regression analyses revealed that nonclinical obsessions of the autogenous subtype were more strongly associated with schizotypal personality features than with OCD symptom severity, general anxiety, or depression. This association remained significant even after controlling for the effects of depression, general anxiety, and OCD symptoms. In contrast, the relationship between reactive obsessions and schizotypal personality traits was found to be negligible. Autogenous obsessions were

best predicted by schizotypal personality traits, whereas reactive obsessions were best predicted by OCD symptom severity. In particular, as predicted, the Magical Thinking and Unusual Perceptual Experiences subscales of the STA emerged as the most potent predictors of autogenous obsessions.

Lee and colleagues conducted another study to further investigate the association between autogenous obsessions and schizotypal traits, particularly anomalous perception and thinking (Lee, Kim, & Kwon, 2005). To this end, the Rorschach Inkblot test (Rorschach, 1942) was administered to 32 schizophrenia patients (SPRs), 15 OCD patients displaying the autogenous subtype as their primary obsession (AOs), 14 OCD patients displaying the reactive subtype as their primary obsession (ROs), and 28 non-psychotic patients with other anxiety disorders (OADs). Rorschach responses were scored based on the Comprehensive System (Exner, 1993), and three domains relevant to the study hypotheses were composed: (a) *Perceptual Distortions* (X+%, X-%, F+%, S-%, and p), (b) *Illogical Ideations* (M-, and WSum6), and (c) *Schizophrenia Index (SCZI)*. We hypothesized that AOs and SPRs would display a greater degree of disturbances in these domains than would ROs or OADs. We also expected that AOs and SPRs, and ROs and OADs would not differ from one another. Consistent with our predictions, results revealed that AOs displayed more severely disordered thinking and perception compared to ROs or OADs, whereas ROs and OADs did not differ on most of the indices in the three domains. Both ROs and OADs exhibited adequate levels of perceptual accuracy and ideational logicity. In contrast, AOs displayed severely disordered thinking and perception comparable to those shown by SPRs (i.e., similarly elevated scores on X-%, M-, and WSum6). Even the Schizophrenia Index did not significantly discriminate SPRs from AOs (See Figure 2).

Overall, these findings suggest that of the two obsession subtypes, autogenous obsessions are

more strongly associated with schizotypal personality features, particularly deviational thinking and perception. These data are also in line with the earlier finding that OCD patients who reported their primary obsession on the Y-BOCS checklist as aggressive or religious in nature had poorer insight and more perceptual distortions and magical ideation compared to OCD patients with other types of obsessions such as contamination, hoarding, symmetry/order, etc. (Tolin, Abramowitz, Kozak, & Foa, 2001). Moreover, our findings are consistent with the diagnostic criteria for schizotypal personality disorder in ICD-10 (WHO, 1993) which include “ruminations without inner resistance, often with dysmorphophobic, *sexual or aggressive* contents” (p. 83), that bear a striking resemblance to the themes of obsessional ruminations reported by OCD patients with autogenous obsessions.

Taken together, it appears that OCD patients with primary autogenous obsessions are more likely to display schizotypal personality features, whereas OCD patients with primary reactive obsessions appear to have greater perfectionistic personality features. Prospective longitudinal studies are needed to examine whether these personality backgrounds would pose a differential developmental risk leading to different types of obsessions.

Two Action Tendencies in OCD

The heterogeneity of clinical manifestations in OCD has led a number of researchers to examine possible underlying subtype structures of its phenomenology. Most authors have attempted to delineate the latent structure of OCD symptoms via factor analysis or classify patients into distinct symptom-based subgroups via cluster analysis (e.g., Baer, 1994; Leckman et al., 1997; Mataix-Cols, Rauch, Manzo, Jenike, & Baer, 1999; Abramowitz, Franklin, Schwartz, & Furr, 2003). However, there are a few limitations worthy of note in these subtyping approaches. First, no consensus has been

reached concerning the exact structure of OCD symptoms. Three to seven factors/clusters have been suggested across different studies. Second, the existing literature purporting to identify subtypes relies almost exclusively on overt symptoms such as washing, checking, or hoarding as a basis for subtyping schemes (McKay et al., 2004). Accordingly, washing, checking, hoarding, and ordering have been repeatedly demonstrated as symptom subtypes, whereas pure obsessional, sexual/religious obsessions, and harming obsessions have received mixed empirical support (McKay et al., 2004). Third, these statistical methods have relied on symptom measures without a guiding conceptual model. Consequently, the conceptualization of latent subtypes of OCD has been limited to the manifest items available, and it is clear that this approach systematically underrepresents certain subtypes (e.g., mental rituals; McKay et al., 2004).

Unlike factor/cluster analytic approaches based on overt symptom presentation, Lee and his colleagues have investigated two obsession subtypes systematically differing with respect to the functional relationship between thought triggers and obsessions, thought characteristics, associated threat foci, and ensuing cognitive appraisals and compulsive behaviors (Lee & Kwon, 2003; Lee, Lee et al., 2005; Lee & Telch, 2005a; Lee & Telch 2005b; Lee, Kwon, et al, 2005; Lee, Kwon, and Kim, 2005). Most importantly, the autogenous-reactive taxonomy of obsessions proposes that heterogeneous clinical manifestations of OCD may be reducible to two broad action tendencies. One involves *a struggle with the thoughts themselves*, in which cognitive appraisals are centered on the perceived threats of the thoughts and/or their associated discomfort; the corresponding control strategies are also focused on neutralizing/removing the thought themselves. The other action tendency involves *a struggle with the triggering situations* and their perceived threat (i.e., anticipated negative

consequences or existing undesired states); the corresponding control strategies are focused on correcting/neutralizing the triggering situations. Autogenous obsessions are more likely to evoke a struggle with the thoughts themselves, whereas reactive obsessions are more likely to evoke a struggle with the thought triggering situations.

Implications for Treatment

To our knowledge, the autogenous-reactive taxonomy has yet to be investigated in the context of treatment. We suspect that the proposed taxonomy may have utility in predicting treatment response to both pharmacotherapy and psychosocial treatment. The therapeutic implications of the model are addressed in this next section.

The autogenous-reactive obsessions taxonomy may help to explain why exposure and response prevention (ERP) techniques have been unsuccessful for obsessional ruminators who exhibit obsessions in the absence of overt compulsions (Marks, 1981; Rachman, 1997; Salkovskis & Westbrook, 1989). ERP has been shown to be successful almost exclusively in certain types of OCD patients with explicit and overt compulsions, such as washing and checking (Ball et al., 1996). We presume that OCD patients who most benefit from ERP are those primarily displaying reactive obsessions. One principal reason for proposing poorer treatment response of patients displaying autogenous obsessions is the difficulty of identifying explicit target threats for exposure and identifying target behaviors to block for response prevention. Foa, Abramowitz, Franklin, and Kozak (1999) proposed that patients who articulate a specific feared consequence, relative to patients who do not, may respond better to ERP because their fear allows for threat disconfirmation. Consistently, they reported a greater symptom reduction in patients who articulated feared consequences relative to patients who did not (69% vs. 45%). In the same vein, it has also been suggested that compared to reducing subjective

distress, preventing harm is a more facilitative motivation leading to a more favorable therapeutic response (Coles, Heimberg, Frost, & Steketee, 2005). From these considerations, ERP is expected to be more applicable for patients classified within the reactive subtype because (a) their fear cues are more explicit and more easily identifiable, (b) their rituals are likely to be more overt, and (c) underlying motivation for rituals is likely to involve harm avoidance, which constitutes favorable conditions for creating potent threat disconfirmation through ERP.

In contrast, for patients with primary autogenous obsessions, intrusive thoughts are perceived as threatening in their own right and lead the person to engage in various avoidant control strategies designed to divert attention away from such stimuli. Thus, applied exposure based on a looped audiotape may prove more effective (Salkovskis & Westbrook, 1989; Freeston, Ladouceur, Gagnon, & Thibodeau, 1997). These patients might also profit from a cognitive approach targeting anomalous ideation and perception (e.g., magical thinking). However, considering the evidence suggesting that the presence of schizotypal personality disorder (SPD) predicts poor response to standard pharmacological (SSRIs) and behavioral treatments for OCD (Jenike et al., 1986; Baer et al., 1992; Mundo et al., 1995; Moritz et al., 2004), it may be that, overall, patients presenting with autogenous obsessions may be less responsive to CBT or pharmacotherapy compared to those primarily displaying reactive obsessions. Randomized controlled trials are required to test these treatment-matching hypotheses.

We are currently working on a project aimed at testing the hypothesized moderation of the autogenous-reactive taxonomy in therapeutic response to psychological and pharmacological treatments for OCD. This will be an important step to demonstrate the clinical utility of the autogenous-reactive obsessions model. Given that

approximately 40 to 60% of OCD patients still either drop-out of treatment or fail to respond to either pharmacotherapy or ERP (Baer & Minichiello, 1998; Stanley & Turner, 1995) despite their demonstrated efficacy indicating large treatment effect sizes (see Abramowitz et al., 1997), it is of great significance to examine putative moderators of treatment for OCD.

Future Directions

The autogenous-reactive subtype model has undergone considerable validation work, but more work remains to be done, including treatment outcome studies mentioned in the preceding section. Some future research questions deserve note.

The linkage between autogenous obsessions and schizotypal personality features needs to be replicated using various modes of assessment, including cognitive-perceptual experiment paradigms. For instance, it would be worthwhile to examine using a negative priming paradigm (Enright, Beech, & Claridge, 1995) whether OCD patients displaying the autogenous subtype show deficits in cognitive inhibition similar to those observed among patients with schizophrenia (Beech, Powell, McWilliam, & Claridge, 1989). This line of research may also contribute to the existing literature suggesting a possible linkage between OCD and schizotypy (e.g., Rossi & Daneluzzo, 2002, Lee, Cogle, & Telch, 2005).

On a related note, future research should address patients' reactions associated with their autogenous obsessions. Although the model posits that reactive obsessions tend to be more strongly associated with overt rituals, autogenous obsessions can also be accompanied by overt rituals. However, the overt rituals performed in response to autogenous obsessions tend to be more magical, superstitious or unrealistic (e.g., compulsively touch things beginning with the letter M five times to neutralize the obsession of having sex with one's Mother), whereas those performed in response to

reactive obsessions are more likely to be characterized by a more realistic and functional linkage to the triggering situations (e.g., engaging in a washing ritual to remove germs, or checking to in order to prevent a terrible mistake). In the case of autogenous obsessions, inexplicit thought triggers and neutralization strategies and their illogical relationship with intrusive thoughts, may contribute to the magical nature of these rituals.

Future work should also be devoted to developing a reliable instrument (e.g., a structured interview) for classifying obsessions into the two subtypes. Some obsessions may require careful consideration of the associated threat focus (beyond the apparent theme of the thoughts) for such classification. For instance, some patients may develop aggressive thoughts into repulsive obsessions in the form of *urges* or *impulses*; whereas others may develop realistic *concerns* or *doubts* that they will harm or have harmed someone. In the former case (typical of the autogenous subtype), the individual may attempt to neutralize the thought itself to reduce the associated anxiety, whereas in the latter case (typical of the reactive subtype), he or she might either physically check to see if harm has been committed, or seek reassurance from others that future harm is not likely. Thus, although both obsessions involve a similar theme, they represent different subtypes because they are associated with different thought forms, threat foci, appraisals, and neutralization strategies.

Conclusions

The autogenous-reactive obsession model suggests two different subtypes of obsessions differing systematically in several aspects, including focus of perceived threat, types of associated appraisals, and types of neutralization strategies used in response to the obsession. We propose that OCD may be represented by two broad action tendencies based on this subtyping scheme: a struggle with thoughts themselves and a struggle

with situations and stimuli that trigger obsessional thoughts. We expect that continued research on this taxonomy will contribute to clarifying the heterogeneity underlying the multifaceted clinical manifestations of OCD.

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Table 1. Comparison of Autogenous Obsessions and Reactive Obsessions

	Autogenous Obsessions	Reactive Obsessions
Perceived Threat	Thoughts themselves	External triggers
Nature of Triggers	Unclear/Symbolic/Remote	Explicit/Clear
Focus of Cognitive Appraisals	Presence and content of thoughts	Anticipated negative consequences of triggering situation
Aim of Neutralizations	Removing/neutralizing the thoughts themselves	Reducing the probability of feared consequences
Thought Form	Impulses/ urges/ images	Doubts/ concerns/ strong needs to have things in a certain state
Common Themes	Sexual/ blasphemous/ aggressive/ horrific	Contamination/ mistakes/ accidents/ order and symmetry
Perceived unacceptability (ego dystonicity)	High	Low

Figure 1. The Continuum Hypothesis of Obsessions and Worry. *Behaviour Research and Therapy*, 43, 999-1010. Reprinted with permission.

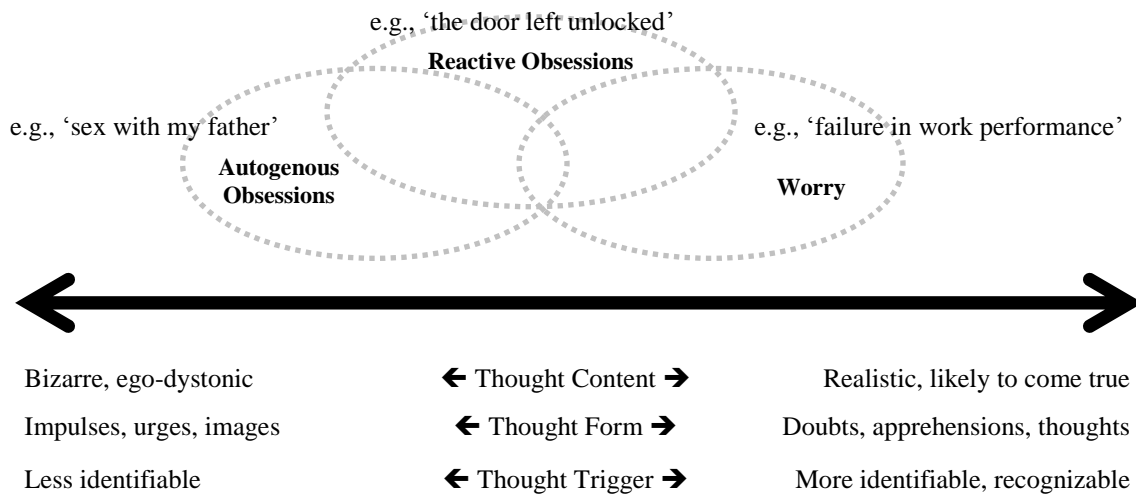


Figure 2. Differences between SPRs, OADs, AOs, and ROs on M-, X-%, WSUM6, and SCZI.

M- (>1) indicates a maladaptive impairment of social perception; X-% (> .29) indicates severe unrealistic perceptions; WSUM6 (>15) reflects a tendency of a formal thought disorder suggesting problems in coherent and logical thinking; SCZI (>3) usually identifies serious adjustment problems attributable to ideational dysfunction (Weiner, 1998).

