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SCRUPULOSITY: A COMPREHENSIVE REVIEW OF THE RESEARCH

A Dissertation

Presented to the Faculty of
Antioch University Seattle

In partial fulfillment for the degree of
DOCTOR OF PSYCHOLOGY

by

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January 2025

SCRUPULOSITY: A COMPREHENSIVE REVIEW OF THE RESEARCH

This dissertation, by Julie Murdock Painley, has
been approved by the committee members signed below
who recommend that it be accepted by the faculty of
Antioch University Seattle
In partial fulfillment of requirements for the degree of

DOCTOR OF PSYCHOLOGY

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ABSTRACT

SCRUPULOSITY: A COMPREHENSIVE REVIEW OF THE RESEARCH

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This dissertation presents a comprehensive analysis of the current research on scrupulosity, a subtype of obsessive-compulsive disorder (OCD) characterized by intrusive thoughts and compulsive behaviors related to religious and moral concerns. The dissertation identifies key similarities and differences from OCD, and directs focus to thematically related yet unsubstantiated theoretical work in psychology that helps elucidate the core features and etiological factors of scrupulosity as differentiated from other OCD subtypes. The study addresses the critical dearth of research on scrupulosity, aiming to fill significant gaps in the literature regarding its historical context, varied presentation and prevalence in different cultural contexts, and potentially effective treatment approaches to address better the needs of a significant number of people worldwide. Beginning with an exploration of historical conceptualizations from the 2nd through the early 21st centuries, the dissertation traces the recognition of scrupulosity and recommendations for treatment across various cultural traditions and major world religions including Islam, Judaism, Hinduism, Buddhism, and Christianity, from both Protestant and Catholic sources, as well as non-religious belief systems. It highlights notable historical figures who exhibited scrupulous behaviors contextualizing them with a modern psychological lens. As the leading theologians of their faiths, they often ironically

advised its treatment from their own experience as the most influential theologians of each of their faiths. These historical writings still have wisdom to impart today. The history of scrupulosity is, in many ways, a history of religion across time and culture, as well as of the birth and first 150 years of psychology itself. Key schools of psychological thought are explored for relevance to developing contemporary evidence-based treatments. Due to few qualitative or quantitative studies on scrupulosity compared to other OCD subtypes, the dissertation reviews key research on OCD symptoms, prevalence, neurobiology, and heritability. It locates scrupulosity both within and outside of the characteristic features and symptoms of OCD subtypes, highlighting areas ripe for future research. From this descriptive basis, analysis is made of its potential placement within an emerging synthesized spectrum of obsessional, attentional, and thought-disordered psychopathology. An analysis of intrapersonal and sociocultural factors identifies cognitive distortions, personality features, attachment styles, and societal influences that contribute to the development of scrupulosity. Findings reveal scrupulosity as a distinct phenotype of OCD, with unique prevalence patterns and treatment considerations across cultures in religious and secular contexts. The dissertation includes novel, theoretically integrated treatment strategies that respect individuals' religious beliefs while effectively addressing the psychological aspects of scrupulosity. This work advances the understanding of scrupulosity within the OCD spectrum and emphasizes key directions for future research to further refine diagnostic criteria and therapeutic interventions. This dissertation is available in open access at AURA (<https://aura.antioch.edu>) and OhioLINK ETD Center (<https://etd.ohiolink.edu>).

Keywords: scrupulosity, obsessive-compulsive disorder, OCD, religious OCD, moral OCD, taboo thoughts

Dedication

To God, I never would have done this without you, or wanted to.

“Come now, and let us reason together...” (Is. 1:18) Thank you for the invitation.

To my Lord and Savior, Jesus Christ, just thank you.

“There are more things in heaven and earth, Horatio,
than are dreamt of in your philosophy” (Hamlet, 1.5, 165-166)

To Brian, who has always believed in me.

To Garrett, Conrad, K.J., and Sarafina, who continue to inspire me.

And to all the people with scrupulosity, may you find healing and wholeness.

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And a very special thank you to Patricia Martin, my dear friend who made me feel so at home in her home away from mine throughout my internship year, and who encouraged me always to finish strong.

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CHAPTER I: INTRODUCTION

When I first met 25-year-old Dylan, he was thin and pale, disheveled, and obviously had not showered for more than a few days. A patient in the Intensive Outpatient/Partial Hospitalization Program where I was a student therapist, he quickly became very concerning to me for his extreme distress and the great extent of his mental health struggles. It took over two hours to complete the Yale Brown Obsessive–compulsive Scale (YBOCS), a structured clinical interview for assessing the extent and severity of his obsessions and compulsions because he insisted on describing every symptom in great detail. Each question would spark another example of his attempts to regain control over his thoughts and actions. His voice trembled as he struggled to find the words. It was obvious he had not admitted these things to anyone before and he feared my judgment and rejection.

Dylan had developed an arsenal of compulsive behaviors attempting to cope with his distressing mental intrusions, such as walking back through a door if a “bad thought” had occurred to him while opening the door. If an obsession popped into his consciousness while brushing his teeth, he would “erase” it by reversing the order of the teeth he had already brushed and begin again “fresh” once he arrived at his starting point.

He also spent hours repeating simple tasks until he was sure he had not made a mistake due to the constant distraction of his intrusive thoughts. All this was to no avail. If one strategy seemed to work here or there, the bad thoughts would surface in a different context. There was no relief.

He haltingly confessed a litany of scrupulous obsessions. Each was followed by an attempt to soothe himself performing compulsions meant to prevent or undo the harm of the acts he feared he had or would commit. He described hours and hours of repetitive checking and

cleaning that had become so chronic he was no longer able to function at his job and had taken a medical leave of absence. As he described his daily life, he was full of self-doubt and often corrected himself when misremembering factual details. This compounded his mental confusion.

He seemed almost psychotic in his intensity and varying degrees of insight about his obsessions. Some of his contamination obsessions were not that irrational considering the heightened contagion anxiety of the early pandemic. But his fears had spread to many other types of disease and food contamination that he also felt he could not prevent. He was plagued with fears of being incompetent at his job and unable to provide for his family, and of his loved ones being harmed not just by disease, but by accidents and natural disasters.

The harm obsessions and compulsions had begun during the last months of his wife's pregnancy. Worries about his wife's and baby daughter's health had escalated dramatically since her birth. He whispered as he confessed the most distressing of all his obsessions. His greatest fear was he that could not protect his newborn daughter—from himself. The first intrusive visualization had begun when changing her diaper and cleaning her genitals. He realized her vulnerability and helplessness. He imagined her being sexually abused. He had immediately felt he must be a sexual predator because who in their right mind would think such a thing? He shuddered as he told me.

Soon, intrusive thoughts of sexually abusing his baby happened anytime he came near her. He found it so repellant that he would leave the room the way he had come in so as to “undo” the thought by attempting to induce his previous, unintruded-upon mental state by physically moving to the place he had been before the thought occurred. He would force himself to remember what he had been thinking when he was interrupted by his obsession. Though “undoing” compulsions had worked for other obsessions, this rarely helped him anymore.

This cycle progressively led to him being unable to be in the same room with his child unless his wife was also there. His young wife was understandably annoyed at him for not helping with the baby, but he could not be comforted or reassured by her as he longed for because he had not told her about his constant thoughts. He was filled with shame and certain she would leave him due to his conviction he was a sexual predator, a child molester, the worst kind of human being. When asked if he had ever given into the thought, he protested he had no intention of ever acting on it, but he believed its very presence indicated that he must enjoy it or it would not keep occurring to him. And it was on his mind throughout the day and causing him to lose sleep at night.

This was the reason for not showering. When he was naked, the thoughts were overwhelming and attempts to undo the thought by washing like he did when brushing his teeth only led to further distressing visualizations as he touched his body. He inferred he had become sexually aroused, but could not say the words. This was the first time he had thought he would be better off dead. He would compulsively rewash himself in reverse order, but had recently been unable to take a shower in under two hours. Now he was avoiding showers altogether.

The line between objective reality and his feared reality had blurred, but Dylan had enough insight remaining to realize his distress was overwhelming his ability to cope despite his desperate efforts. If he could not escape this tortuous mental cycle, he risked losing his job and his family. He felt he was already losing his sanity.

Dylan was certain of only one thing, and that was he was a terrible person who deserved to burn in hell for having these thoughts. He would compulsively pray for forgiveness, and to be spiritually cleansed from the feeling of mental contamination. Listening to this unfiltered confession, I, too, felt overwhelmed by the sheer number of obsessive-compulsive episodes that

cascaded one into another with no resolution. It was a continual mental torment unlike any I had heard from a patient before, even the floridly psychotic delusional state of acutely manic patients. But Dylan was not manic, in fact, he would sometimes fall asleep during the day-long therapy program because he was so utterly exhausted.

As I completed the clinical interview, I learned that Dylan was the only child of parents who divorced when he was very young. He described his father as distant and rejecting and his mother was overly solicitous even in his adulthood. Her worry for him compounded his own. Those significant psychosocial details seemed superfluous to his current state of distress, but I dutifully asked the clinical interview questions to conform to clinic protocols. Dylan felt disconnected from his peers in adolescence and briefly experimented with drugs, New Age beliefs, and occultism in his early 20s before meeting his wife approximately two years before.

At that time, he had a very sudden and intense conversion to Christianity, the religion in which she had been raised and was intimately familiar. She was able to answer many of his questions, but in the first few months of his new faith, he had not been able to get past persistent doubt about his eternal destination. He imagined the lake of fire described in the Bible book of Revelation and many souls crying out to be rescued, their arms raised to him. He could not be persuaded that he was safe from being judged unworthy and thrown in the fire, too. He believed he was not good enough for heaven. The harm obsession concerning his daughter proved it to him.

I recommended to his individual therapist to try Cognitive Behavioral Therapy (CBT) for the obsessions and Exposure and Response Prevention (ERP), the gold standard treatment for the more obvious compulsions of cleaning and checking, and retreating from doorways, and so on. Over the next few weeks, he reported a few immediate small successes. However, Dylan would

relapse any time his therapist attempted to address his “worst” obsession which concerned his daughter. He could not grasp that because the obsession so distressed him that meant it was not something that he actually wanted to do. In his mind, he was already a perpetrator. But in reality, he could prevent himself from acting on his thoughts. This simple logic failed to persuade him that his daughter was safe from him, though he wanted to believe it. He usually found temporary relief when he prayed, but prayer had become a compulsively repetitive, time-consuming process, as well.

Over the next several weeks, he made progress with the checking and washing compulsions with ERP. But as those symptoms decreased, he became more obsessed with certain Bible verses. He knew reading them, even reciting them, should make him feel comforted and more assured in his faith, but it was having the opposite effect. He was bombarded with doubt as to the “real” meaning behind them. His interpretations were decidedly concrete, as was his yearning for absolute certainty about the existential question of whether he was destined for heaven or hell.

Dylan had devised a strategy of repeating the reassuring Bible verses a certain number of times that was a “lucky number” and then he could stop, having achieved a sense of completion. This soon became futile because as his mind inevitably wandered back to the obsessive thought while repeating the verse it was supposed to negate, he would lose count and have to start over. He was mentally and emotionally exhausted every day. His compulsions were by now taking most of the hours of his day and the only relief came from nightmare-filled sleep. Despite our best efforts, he was spiralling into worse torment than before.

In his dreams, his family was under attack from different kinds of monsters every night. He was always too late to save them. Sometimes, he was the monster. He perceived this as a

spiritual attack from malevolent external forces. He feared he could never escape what he described as “hell on earth.” He said the only thing keeping him from attempting suicide was his strong religious belief that suicide would send him to a literal hell forever. While his discharge from the intensive outpatient program loomed, I argued with his insurance provider for admission to an inpatient program specifically for OCD. But, without a prior history of suicidality, the insurance company did not think his condition was serious enough to warrant that level of care.

Dylan suffered from a classic case of scrupulosity, a subtype of OCD focused on religious and moral themes and often centered on violent and/or sexual content. Unlike other patients with OCD, the person with scrupulosity rarely achieves remission of symptoms with traditional psychotherapy. As I discovered in my work with him and other patients with scrupulosity, the outlook for full recovery is grim. Like other OCD patients, the time lapsed before seeking treatment is seven years on average due to avoidance, self-stigma, and shame (International OCD Foundation, n.d.). This burden of human suffering is incalculable and often invisible.

Having OCD is indeed like “being caught in flypaper”: The more you wrestle with obsessions and compulsions, the more you become mired in their stickiness, the more your world narrows, the more despair and anxiety creep in, until any action to free yourself seems impossible. (Olson, 2003, p. 150)

Attempts to relieve their suffering are compounded by ignorance and frustration. Typically, people with scrupulosity perceive their problems as religious in nature, not psychological. They repeatedly seek reassurance for their fears from religious clergy who expend much fruitless effort attempting to use their religious knowledge and counseling skills to appease

these troubled souls—yet, by the nature of the disease, they are unappeasable. When referred to psychologists and other therapists, who often have little knowledge of religion themselves, mental health professionals often grow frustrated with the patient’s endless search for reassurance in matters they may be ill-equipped to answer factually. Though well-versed in psychological methods of treating pathological doubt by confronting their fear, and reducing anxiety through habituation, therapists are often unable to convince the patient that reaching certainty is not required in order to stop their obsessions. When the subject is as personally important as one’s spiritual salvation, it is very hard to accept any uncertainty (Autton, 1963; Ciarrocchi, 1995; Collie, 2005; Jackson, n.d.).

Scrupulosity as a Type of Obsessive Compulsive Disorder

Scrupulosity has been categorized most recently under the umbrella diagnosis of obsessive–compulsive disorder (OCD), a common psychiatric condition affecting 1.2% of people in the U. S. yearly (American Psychiatric Association, 2017, 2022) and with a lifetime prevalence of approximately 2–2.5% (de Mathis et al., 2006; C. H. Miller & Hedges, 2008; Robins, 1984), which makes it more prevalent than schizophrenia and bipolar disorder (Tyagi et al., 2010). Some experts believe OCD is vastly under-diagnosed due to being overlooked when other mental disorders are addressed in treatment (S. A. Rasmussen & Eisen, 1992).

Based on the 2–2.5% prevalence of OCD, in the United States’ population of 337 million (U.S. Census Bureau, n.d.), approximately 6.7 million will have OCD in their lifetime, and 4 million will experience clinical OCD in any given year. Of people with OCD, approximately 30% experience religious or moral obsessions and compulsions. This rough calculation reveals that there could be 1.2 million people per year (about the population of New Hampshire)

experiencing scrupulosity at clinical levels of severity. Lifetime prevalence of scrupulosity in the U.S. population therefore, is approximately 2 million people (about the population of Nebraska).

Once diagnosed, OCD patients experience higher severity of their condition than other mental disorders; 50.6% are rated severe compared to 22.8% for any other anxiety disorder (Angelakis et al., 2015, p. 11). OCD is frequently severe enough to be disabling (Siev, Abramovitch et al., 2017), and is one of the Top 10 leading causes of disability world-wide according to the World Health Organization (Murray et al., 1994). It should not be surprising then that OCD has a lifetime risk of suicidal ideation occurring in 31.7%–63.5% and attempts occurring in up to 46.3% of those formally diagnosed (Angelakis et al., 2015, p. 7; Balci & Sevincok, 2010; Kessler et al., 2005).

Current theoretical understanding of the etiology and maintenance of the disease is centered on the cognitive theory of obsessions (Rachman, 1997). In the last several decades, the cognitive theory has been very well supported by psychological research and confirmed in many studies (Berman & Abramowitz, 2012; Buchholz et al., 2019; Cogle et al., 2013). This has led to a breakthrough in treatment efficacy for OCD using a type of Cognitive Behavioral Therapy to interfere with the compulsive behaviors that reinforce the patient's obsessional thinking in a cycle of negative reinforcement—when the compulsion is performed and the feared consequence does not occur, the obsessive–compulsive cycle is continuously strengthened by negative reinforcement by seeming to prevent it. This is followed by further iterations of the obsessional thought each time the patient has temporary success dismissing it by performing the compulsion.

Exposure-Response Prevention (ERP), an evidence-based therapy, redirects the patient away from performing the compulsive act and breaks the repetitive cycle through purposeful exposure to the obsessive habituation to the stimulus of the obsession. When the feared

consequence continues to fail to occur despite the lack of performing the compulsion, the process of habituation ensues which decreases the patient's distress from the obsessional thought along with the prevalence of its intrusion (American Psychiatric Association, 2017; Benito & Walther, 2015; Foa & Kozak, 2004; Havnen et al., 2014; Öst et al., 2015; Van Balkom, 1994).

However, not all patients who could receive ERP are as amenable to this proven intervention (Doron, 2014; H. Kim et al., 2023; Ong et al., 2016), because “successful exposure and response prevention requires patients to confront their fears (i.e., exposure component) as well as to voluntarily stop their rituals” (Wheaton et al., 2016, p. 6). A meta-analysis concluded 15% of patients never start ERP and another 15% drop out before finishing treatment (Öst et al., 2015). For the patients who complete treatment, strict adherence to the protocols of ERP determines their outcome and subsequent remission rates. In one meta-analysis, “25.4% showed little change ... predicted by baseline avoidance and transdiagnostic internalizing factor levels” such as comorbid affective disorders (H. Kim et al., 2023, p. 1). Though it is effective, many people are reluctant to engage with this style of treatment.

Obsessions with moral or religious themes are seen across religions and cultures and are prevalent in at least 30 percent of people experiencing clinical severity of OCD symptoms in the U. S. (Abramowitz et al., 2002; Mataix-Cols et al., 2002; Williams et al., 2017). Worldwide, scrupulosity varies with cultural and religious context with some cultures reporting 60% (Inozu et al., 2012) to 83% prevalence in the Middle East (Horwitz et al., 2019). Some religious obsessions are existential in nature, concerned with the eternal consequences of sin and judgment, including “fears that one has committed sins (or will do so), intrusive mental images of a sacrilegious or blasphemous nature, and fears that one will be punished by God or will go to Hell” (Abramowitz et al., 2002, p. 826).

Scrupulosity encompasses issues of faith and doubts for which there can be no practical, effective method of exposing patients to their feared outcomes, such as punishment by God and going to Hell. Their fear of eternal damnation is continually negatively reinforced when that eternal consequence has not yet occurred, but may yet occur at some unknown future time. There is simply no way to be totally reassured and give up perpetual doubt and fear under these conditions. One proposed method of habituating the patient to a hell obsession is by accepting that they may indeed go to hell one day. However, on its face, the beliefs of the three major monotheistic religions are completely irresolvable with accepting this potential outcome. Other potential exposures during ERP to religious practices that are commonly compulsively practiced could require the patient to violate their moral code or religious beliefs, and be considered by them to be willful wrongdoing. Therefore, religious obsessions can be highly resistant to cognitive-behavioral approaches due to treatment failure by mental health providers and clergy alike (Himle et al., 2011).

Purpose of the Study

This theoretical study will examine the extant literature regarding the complex conditions which give rise to a clinically heterogeneous phenotype that differentiates OCD with moral and religious themes, known historically as “scrupulosity,” from OCD with non-moral/non-religious themes. Historical descriptions of obsessive–compulsive symptoms also will be examined to give consideration to both various historical and contemporary cultural contexts through the insights of religious leaders among different world religions. Their writings have influenced the development of current theoretical viewpoints of the origin and clinical treatment of OCD, though these sources have largely been forgotten or ignored since the advent of the field of psychology emerged in the late 19th century. By differentiating key etiological factors of

psychological understanding of scrupulosity and OCD, this study will provide a more nuanced understanding of OCD with moral and/or religious themes. The practical utility of this research will be to suggest fruitful areas for future research and development of more effective evidence-based treatments for scrupulosity. Understanding of how better to treat the disorder is poised to converge on its unique psychological, sociological, physiological, and spiritually salient attributes, which have been investigated in separate lines of psychological research when addressed at all. The increased clinical and research utility of more integrated theoretical basis for OCD and its under-appreciated yet distinct presentation of scrupulosity would promote development of future treatment protocols that could go far in ameliorating a substantial source of human psychological suffering.

Dearth of Research on Scrupulosity

Despite extensive attention to other presentations of OCD, the field of psychology continues to under-recognize the distinct features of OCD with a moral and/or religious focus within the organization of the DSM-5 and DSM 5-TR. A dearth of research since publication of DSM-5 indicates that it is still under-studied in comparison to other OCD subtypes. For example, a search on “scrupulosity” on ScienceDirect (September 2021) returned 93 review or research articles since 2013, the year of the DSM-5’s publication, compared to 6,753 for “Tic Disorder,” a less common condition. This notable discrepancy between research attention for other types of OCD and the much higher actual prevalence of scrupulosity among OCD sufferers in clinical practice makes it clear there has not been enough scholarly attention focused on this important clinical issue.

The phenomenon of scrupulosity, the factors contributing to its prevalence and severity of symptoms, and the problem of how to best treat it in clinical settings remains fertile ground

for future research. This is especially relevant for clinical practice due to its common comorbid presentation along with other affective and cognitive disorders. Together they contribute strongly to overall failure to alleviate the distressing psychological symptoms of people suffering from scrupulosity. Historically, research on scrupulosity has been conducted from diametrically opposed viewpoints. On the one hand, it is considered within the overarching domain of various presentations of OCD. As such, it is often included in the literature within findings focused on other clinical presentations of the disorder. Typically, it is represented within the content domain of taboo or forbidden obsessions and intrusive thoughts of a repugnant sexual, violent, and/or blasphemous nature, and result in compulsive behaviors aimed to avoid harm. However, such thoughts often lead to pathological uncertainty due to the serious nature of such potential harm.

The content domain of religious and moral themes presents challenges unlike other OCD obsessions due to its uniquely existential nature and highly distressing personal meaning. However, much can be gained from placing scrupulosity within the context of other OCD obsessions and compulsions due to shared biological, cognitive, emotional, and relational factors that together contribute to these symptoms in a person's life. Deeper understanding of the varied presentations of scrupulosity in both a clinical and clerical context is needed to bring the full weight of acquired wisdom to bear in effective treatment. It is important, therefore, to trace our current knowledge base back to its historical roots in hopes that an evolved conceptualization of scrupulosity will be integrated with the attention to both dimensions that it deserves.

Gaps in the Literature

Research on OCD has largely focused on the cognitive features of the disorder based on a cognitive theory of OCD developed beginning in the 1970s and refined through the 1990s (Rachman, 1971, 1997, 1998; Rachman & de Silva, 1978). More recent research has linked both

affective and personality traits and patterns of attachment style with the manifestation and maintenance of OCD, yet are rarely included in scholarly discussion of the etiology of the disorder (Fergus & Rowatt, 2014a; Seah et al., 2018). A cohesive theory has yet to be postulated that integrates both emotional/intrapersonal and interpersonal/relational dynamics with the cognitive theoretical framework that, together, support development and perpetuation of OCD. Scrupulosity varies from other subtypes of OCD in each of these domains and further complicates psychological understanding of the phenomenon. While OCD has been well-studied in the past few decades, “systematic studies of religious obsessions, and of the relationship between religious and obsessive–compulsive phenomenon, have rarely been performed” (Tek & Ulug, 2001, p. 100). This dearth of research leaves clinicians with little direction when their patients with religious and moral obsessions and compulsions fail to respond to treatment using existing evidence-based therapies (Himle et al., 2011).

Methodology

The research phase of the literature review entailed extensive systematic searches on the Antioch University Library website, PsycInfo database, PubMed database, Semantic Scholar, Google Scholar, EBSCOhost Academic Search Complete database, and other online resources for peer-reviewed articles and scholarly books in both electronic and print journals, as well as historical sources referenced by contemporary writers in both the scholarly and popular self-help literature. The AURA and ProQuest databases of completed dissertations were also searched. When seminal articles were identified, a search for more recent papers referencing the earlier articles helped to identify current developments. I also searched from the references of identified articles to identify foundational work in those fields. Search terms included keywords related to OCD, scrupulosity, and concepts related to the research references in identified articles.

Once a large body of articles was identified, a thorough review of all relevant literature including meta-analyses, quantitative, qualitative, theoretical studies and educational material was conducted. Analysis of the known relationships between scrupulosity and OCD and the factors which influence the course and treatment of the disease was completed. Finally, recommendations were made of specific areas for future study of this phenomenon.

CHAPTER II: HISTORICAL CONCEPTUALIZATION OF OBSESSIVE–COMPULSIVE SYMPTOMS OF RELIGIOUS AND MORAL CONCERNS

Scrupulosity Recorded in the 2nd–7th Centuries

Obsessive Compulsive Disorder has been clearly recognized as a psychological disorder since the early days of psychiatry and psychology. It continues to be widely misunderstood and difficult to treat successfully (Foa & Kozak, 1998). However, identification of scrupulosity as a distinct problem of both a psychological and spiritual nature predates not only all of the development of modern psychology and psychiatry, but it has been observed and reported as far back as history has been recorded. For example, obsessive–compulsive behaviors were recorded as an over-concern with housekeeping rituals during the Passover festival as early as the 2nd century AD. Rabbis gave specific advice for handling these issues in the Jewish *Mishnas*, early written accounts of the far older oral tradition of Jewish law. A prohibition against excessive, repetitious prayer was also recorded in the 6th century in the Babylonian *Talmud*, a compilation of many centuries of Jewish rabbis' opinions of religious law interpretations (D. Greenberg & Huppert, 2010).

The explication of the multitudinous history of scrupulosity is in many ways a description of the etiology of understanding of mental illness and evolution of modern psychology itself. It is important to document these historical events and glean the wisdom of these people across time and cultures lest we forget these lessons and have to discover them afresh. These historical figures recorded their struggles in journals, letters, theological and medical treatises, and even interpretations of religious law that read like legal briefs. They also left personal narratives of suffering and testimonies of solutions they found to problems common to humanity through all

cultures and epochs, and notably without our modern theoretical framework of the scientific methods of psychology.

St. John Climacus

In the 7th century AD, careful consideration and sage advice about cultivating Christian spirituality, “The Ladder of Divine Ascent” was written by John Climacus (1982) or “St. John of the Ladder” (ca. 579–649), abbot of St. Catherine Monastery, Sinai Mountain. It strongly influenced monastic theology of the Eastern Orthodox Church and has been translated into Latin, Arabic, Syriac, Armenian, Old Slavonic, and many modern languages. Popular with monastics and laypeople alike, Climacus describes 30 steps toward becoming more Christ-like (Climacus, 1982). Each step describes a stage of spiritual struggle and growth from a virtue to attain or a vice to surrender. Discourse 22 entitled “Concerning unspeakably blasphemous Thoughts” addresses both volitional blasphemies and unintended intrusive thoughts as well as obsessions and how to understand and deal spiritually different types of profane thoughts (Avgoustidis, 2013). St. John acknowledges the inherent difficulty in seeking help with guilt- and shame-inducing blasphemous thoughts that seem to occur especially during times of worship.

It is extremely hard to articulate and to confess it and therefore to discuss it with a spiritual healer. ...This “deadliest enemy of all” (blasphemous thought) ... causes frustration and despair in many people, for like a worm in a tree this unholy enemy gnaws away all hope. ...For if these dreadful and unholy words are my own, how could I offer humble worship after having partaken of the sacred gift? How could I revile and praise at the same time? (Climacus, as cited in Avgoustidis, 2013, p. 596)

St. John distinguishes between conscious guilt over dreadful content one entertains and that leads to self-blame, and unconscious guilt, arising from hidden motivations and sin, such as pride, which makes the mind fertile for such thoughts to arise (Avgoustidis, 2013).

Drunkenness leads to stumbling. Pride leads to unholy thoughts. The drunkard will be punished not for his stumbling but for his drunkenness. (Climacus, 1982, p. 211)

Being affected by pride, the person with obsessional thoughts bears no blame for the content because it is not willed, but for the persistence of it when the underlying issue is not addressed. And St. John warns that it is “not unusual for blasphemous thoughts to lead to despair or to deep frustration and “the wasting of the body” from grief (pg. 212)” (Avgoustidis, 2013, p. 597). Climacus noted the physical effect of such mental torment. “This deceiver, this destroyer of souls, has often caused men to go mad ... It has evilly and tyrannously caused the bodies of some to be worn away with grief” (Climacus, 1982, p. 211).

Further, St. John notes “both the morbid, yet conscious attribute of obsession that separates it from delusion, and the impulsive and uncontrollable thought attributes, which distinguishes it from fixed ideas” (Avgoustidis, 2013, p. 596). Doing so, St. John recognized the unbidden, unwelcome nature of obsessional thought, though it was commonplace to place theological blame on the devil for the temptation to entertain them within cultural norms of the time.

For a religious text of the 7th century, it is not surprising that the “Ladder” considers the devil as being responsible for motivating blasphemous thoughts (as for many other human’s sufferings). But this statement has nothing to do with a superstitious conception about demonic possession and does not imply either an antimedical stance or any

therapeutic suggestions, such as exorcisms and rituals based on magic beliefs.

(Avgoustidis, 2013, p. 596)

Avgoustidis reflects that Climacus understood that “these unspeakable, unacceptable, and unthinkable words are not ours” (Climacus, as cited in Avgoustidis, 2013, p. 596) with recognition of the thought occurring like an “invasion” rather than a volitional urge to believe it. In other words, lacking the psychological terminology used today, Climacus described the thought as obsessive-compulsive in nature rather than religious or spiritual.

Anyone disturbed by the spirit of blasphemy and wishing to be rid of it should bear in mind that thoughts of this type do not originate in his own soul ... *If you have blasphemous thoughts, do not think that you are to blame. God knows what is in our hearts and He knows that ideas of this kind come not from us.* (Climacus, 1982, p. 211)

St. John advocates externalizing the thoughts, calling them the “spirit of blasphemy, then devaluing their effects on one’s emotions in a way that desensitizes the sufferer.

Let us make light of him and pay no regard whatever to his promptings ... Hold this foe in contempt and you will be liberated from its torments. Try cleverly to fight it and you will end up by surrendering, for the man who tries to conquer spirits by talk is like someone hoping to lock up the winds. (Climacus, 1982, pp. 212–213)

In St. John’s writing, he makes clear his deep understanding of obsessional phenomenon and their nature as a manifestation of sickness arising from the body and mind, in other words, mental illness rather than demonic activity. He adjures one to avoid succumbing to temptation to entertain the thoughts, and the risk of failing to root out the seed of pride which makes every one of us susceptible. He hints that the sin of pride is one that occurs not by willfulness but in not addressing the injury to one’s pride that occurs when a shameful blasphemous thought intrudes

when one is seeking to be pious. He further makes insightful recommendations for defanging obsessions that bear a striking resemblance to modern psychotherapies for OCD (Avgoustidis, 2013).

Perhaps the most quietly revolutionary theme in the manner he addresses the issue of scrupulosity is placing it within the broader frame of spiritual development that every faithful person must seek. He deftly avoids stigmatizing it as something other than a common problem to deal with if and when it appears. It is just one of the many pitfalls along the journey to greater heights of spiritual growth. Normalizing scrupulosity within religious experience, as St. John instructed over 15 centuries ago, models a rapprochement of psychology and religion that would benefit us today (Avgoustidis, 2013).

Over-scrupulous interpretation of specific laws and religious cultural prohibitions and tormenting obsessions must have been a widespread enough problem to warrant inclusion in these ancient historical works. Then, as now, good advice is hard to come by. “In attempting to solve a spiritual problem for its members, these writings document the ancient existence of a troubling emotional condition” (Ciarrocchi, 1995, p. 49).

It is important to review these historical references for not just curiosity’s sake, but for whatever is useful that can be gleaned from such experiences across such breadth of time and culture. It seems the same wisdom has been learned, lost, and relearned across successive civilizations. These sources view OCD through a distinctly religious context mainly abandoned in current psychological literature. The insights recorded for us about its spiritual importance and psychological effect may be more relevant today than we can imagine.

Islamic History and Recognition of Obsessive–Compulsive Symptoms

Psychological science was acknowledged and addressed from early in the Islamic “Golden Age” spanning 790–1258, “a time that marked the accelerated expansion of Islamic Civilization” (Arshad, 2019, p. 187) during a period of cultural synthesis and accumulation of great wealth as the center of a crossroads of trading with China and India in the East, Persia, the Middle East and North Africa, Italy and as far west as the Iberian peninsula. Great classical works of antiquity were translated to Arabic from knowledge “synthesized from works originating in ancient Mesopotamia, Ancient Rome, China, India, Persia, Ancient Egypt, North Africa, Ancient Greece, and Byzantine civilizations” (Islamic Golden Age, n.d.).

There are several early works and contributions of Islamic scholars that have contributed to what is now known as Islamic psychology pronounced and identified in Arabic as ‘Ilm al-Nafs, which means the science of the self or psyche. This science provides an Islamic perspective of the philosophical, biological, and medical study of the self or psyche, including the areas such as psychology, psychosomatic medicine, psychiatry, philosophy of the mind, and neuroscience. (Arshad, 2019, p. 187)

Faruqi (2006) emphasizes the legacy of Islamic intellectualism in “the role that Muslim scholars played in the development of scientific thinking in the Middle Ages” (p. 391).

The Muslims were not just the preservers of the ancient and Greek knowledge, but that they contributed original works to the different fields of science. ... This knowledge was transferred to Western Europe and subsequently played an important role in revitalising a climate of learning and exploration in Europe, leading to the Renaissance in the sixteenth and seventeenth centuries. (Faruqi, 2006, p. 391)

Persian Polymath Abu Zayd Ahmad ibn Sahl Al-Balkhī

Intellectualism was revered, especially among the elite polymaths who developed expertise across a wide variety of subjects. Among these was Abu Zayd Ahmad ibn Sahl al-Balkhī (850–934 C.E.), well known as “one of the greatest scholars of his time” with “contributions to the fields of philosophy, mathematics, history, geography, medicine, belles lettres, grammar, and others,” about 60 works in all (Badri, 2013, p. 9).

Al-Balkhī described the health of the human psyche in the first known clinical description of mental disorders and their treatment, *Sustenance for Bodies and Souls*. Well-known to Islamic scholars, it has been translated for the first time to English in 2013 (Badri, 2013). The scope and depth of Al-Balkhī’s writing demonstrates a deep understanding of psychological thinking long before it was conceptualized through the cultural lens of Western civilization.

The first volume contains medical descriptions of how to assess physical health, as well as diseases and their treatment. Al-Balkhī expands upon centuries of previous scholarship along with personal insights from his practice as a physician. In the second volume, he credits himself with being the first to accomplish an independent study of psychological health and disorders and their treatment, a “first attempt to collect the various topics of the branch of medicine which treats mental diseases, together with psychosomatic and psychotherapeutic treatment” (Badri, 2013, p. 10).

Al-Balkhī and other Islamic scholars “were inspired by the Islamic view of nature, that is, mankind had a duty to ‘study nature in order to discover God and to use nature for the benefit of mankind’” (Faruqi, 2006, p. 391). True to his Islamic worldview, al-Balkhī views the human body to be corporately influenced by its physical nature, the mind’s conscious mentations and

emotions, and both parts' relationship to Allah. His view of the tripartite nature of humanity reflects the Islamic understanding that there is no separation of mind, body, and spirit as in Western thinking. "The right approach is to supplement ministrations to the body with those directed to the soul; this is essential" (Badri, 2013, p. 9). Firmly rooted in Eastern philosophy, he acknowledges the dualistic nature of humanity but emphasizes the inseparable nature of physical, mental, and spiritual health.

Since man is composed of a body and a soul, he is bound to face from each part of them fitness or weakness, health or sickness or other symptoms that afflict his health in a negative way. (Badri, 2013, p. 28)

This viewpoint has only recently been recognized in post-modern Western thought and begun influencing physical health care delivery by such "innovations" as incorporating mental health services in primary care medicine (Gask et al., 2018; Naylor et al., 2016). Al-Balkhī advised physicians of his day to treat the whole person and to find balance between mental, physical, and spiritual health.

For al-Balkhī, it was not possible to discuss psychological well-being as separate from spiritual well-being. The concept of mental processes and emotions he communicates as the purpose of the soul's function (Badri, 2013).

The approach of adding means for sustenance of souls to the sustenance of bodies is an appropriate, correct one. Indeed it is a much needed (therapeutic) approach which can be beneficial due to the interaction between the workings of the souls with those of the body. Man's stamina is a combination of both his body and soul and one cannot imagine that he can exist without this dual combination which causes him to act as a human being. (Badri, 2013, p. 29)

Among al-Balkhī's inferences was the "medical nature of the human emotional state," (Badri, 2013, p. iii) which he criticized his contemporary physicians for ignoring. Frustrated by their reluctance to incorporate psychological medicine in their practice of physical medicine, al-Balkhī wrote a "rather modern, self-help style manual" (Badri, 2013, p. iii), to communicate to ordinary people his knowledge of mental health problems and treatments. He also focused his discussion on recovering and sustaining well-being that is, again, just being rediscovered in the psychology of the late 20th–early 21st century (Badri, 2013).

When the body becomes ill, is in pain and subjected to harmful things, it will even prevent those with strong disposition from proper understanding and learning and other (mental activities), or performing duties in a proper manner. And when the soul is afflicted (with psychological pain) the body will lose its natural ability to enjoy pleasure and will find its life becoming distressed and disturbed. Not only that, but psychological pain may lead to bodily illnesses. And if this is so, then every person has a real need, particularly those who frequently suffer from harmful psychological symptoms, to know how to deal with them in order to treat them or reduce their harmful effect. (Badri, 2013, pp. 29–30)

Al-Balkhī wrote of four types of mental disorders categorized by their affective and etiological congruence. He conceived these categories to be fear and panic, anger and aggression, sadness and depression, and obsessions (Badri, 2013). This categorization scheme is advocated in modern psychology as a trans-diagnostic conceptualization where discrete mental disorders are not separated by distinct symptom presentations, but symptoms are acknowledged to span a number of diagnoses and form just one part of their conceptualization (Barlow et al., 2018; Gillan et al., 2017). Al-Balkhī's "approach was both preventive and therapeutic, which shows a

deep understanding of the human condition, its emotional states and the need for appropriate treatments” (Ali-de-Unzaga, 2020). Further, al-Balkhī provides effective therapeutic interventions for each category of symptoms he identifies, which presages principles and therapeutic techniques of modern cognitive-behavioral therapy for those conditions (J. S. Beck, 2020).

Al-Balkhī wrote of obsessions in a chapter titled, “Mental Maneuvers that Fend off the Recurring Whispers of the Heart and the Obsessive Inner Speech of the Soul.” Al-Balkhī explains that obsessions must have an organic origin as well as psychological (Badri, 2013, p. 54).

Obsessive inner speech of the soul is one of the symptoms that can be helped by the psychological healing of the soul. Actually this symptom is one of the most harmful and damaging to man. This is due to the fact that though it is considered a psychological disorder, in reality it is not purely so. Its etiology is shared with organic bodily aspects. No human being is spared from occasional or frequent anxiety, anger and sadness, but this repetitive inner rumination of the soul is not as common. (Badri, 2013, p. 55)

Al-Balkhī conceives of obsession as a continuous spectrum of disordered thinking that varies as to insight and disturbance as severity increases. He further differentiates states of obsession as characterized by the level of disturbance. He describes the less severe type of obsessional state as causing little or no agitation due to the ego-syntonic nature of the thoughts, resonant of the modern conceptualization of Obsessive Compulsive Personality Disorder (OCPD). This he describes as an inherited trait similar to inborn temperament (Badri, 2013, p. 55).

Conversely, when the disorder is caused by an inherited temperament it usually does not seriously worsen. In fact it may become habitual and the afflicted may only suffer from the symptom when alone or when not engrossed in some demanding business. (Badri, 2013, p. 55)

The less serious variety of the condition does not recur excessively or interfere with one's life as will the second, more impairing condition. This more impairing disorder presents with obsessions that are ego-dystonic, the degree to which someone's obsessions are inconsistent with their values and morals and cause them to reevaluate themselves, and akin to clinical OCD (Badri, 2013). "Given that obsessions occur outside the context of one's value system, they are perceived as a threat to one's self" (Reuman & Abramowitz, 2018, p. 3).

Al-Balkhī differentiates normal thought processes from OCPD-like obsessions.

A person may be spared from this symptom throughout his life without ever complaining from its harmful effect. This does not mean that he does not experience an inner self conversation of the soul since this is a common disposition of the human soul that is part of human nature. What we mean is that this monologue does not recur in an obsessive manner that interferes with everyday chores nor does it bring fearful thoughts or make one imagine dejecting things. That is why we say that its etiology has a share with the body. (Badri, 2013, pp. 54–55)

Of the more impairing obsessions that are similar to clinical OCD, al-Balkhī discerns that it can onset due to sudden increased stress and thereafter the course of the affliction is frequently deteriorating (Badri, 2013, p. 55).

Repetitive whispering can have an inherited predisposition or it may appear as an unexpected symptom due to some (negative) experiences. Though the obsessive

symptom that originates from an inborn disposition is more frequently suffered from during one's life, it is still less stressful than the one that suddenly afflicts the person at a later age in a way that he has not experienced before. In the first instance, the victim would have already accustomed himself to these intruding thoughts and does not expect his condition to worsen. He may feel better and momentarily forget his problem whenever he is very busy with important issues. In the second case, however, the first unexpected attacks would cause so much tension that he may deteriorate to an unbearable level of anxiety and fretfulness. (Badri, 2013, pp. 54–55)

The content of obsessions, al-Balkhī notes, can be both of positive and negative thoughts. The commonality among them is the fervor with which the obsessional is possessed by their thoughts (Badri, 2013, p. 58).

This obsessive monologue of the soul is not limited to hateful thoughts. It can obsess with thoughts about something that one loves and deeply wishes to have. So, irresistibly falling in love may at times be seen as such an obsession. Such thoughts about a beloved object may be so overwhelming that the person may be hindered from thinking about anything else concerning his livelihood or even his other pleasures. (Badri, 2013, p. 58)

When spiritual obsessions take hold, al-Balkhī (2013) notes they can be considered harmless when seen in “the devoted worshipper who loves to be alone with his Lord in spiritual consciousness” (Badri, 2013, p. 61). Al-Balkhī does not comment further on religious obsessions, perhaps due to the belief that the spiritual thoughts of man are inherently inseparable from secular thoughts, and therefore part and parcel of the person's other obsessions with no further distinction necessary. He may be implicitly implying that spiritual obsessions are

normative for his religion in that he refers only to exceptions to his general advice for individuals in important social roles.

Special groups of people, such as rulers of a state, concerned with drafting well thought out acts and measures for the running of their country, or for wise scholars, in a library trying to come up with a novel discipline or writing a new book. ... Other than such endeavors, loneliness is blameworthy since it can only lead to useless and aimless thinking. (Badri, 2013, p. 61)

Al-Balkhī considered such important activities requiring sustained mental focus must supersede the ordinary advice given to other obsessive people whose vocations would not necessitate deep thinking. Such purposeful sustained cognitive machinations can easily be confused with nurturing an obsession. With no other explicit reference to religious obsessiveness that could be identified as similar to OCD scrupulosity in the DSM-5, we must assume he did not deem it as a distinct issue or perhaps an important enough topic to include. Or perhaps what would be considered excessive religious activity in contemporary practice was simply not considered abnormal, or perhaps even unusual in the cultural context of al-Balkhī's time.

However, what is evident is that he considers spending time in worshipping Allah to be a beneficial aspect of spiritual practice (Badri, 2013, p. 61). However, such cognitive and emotional intensity can also focus on negative thoughts and obsessional fears.

But of course the really harmful way in which this symptom afflicts is when it possesses the person with threatening and fearful thoughts. Such persistent thoughts would make him imagine that a dreadful incident is going to befall him or that a physical harm is about to badly affect his body. The latter obsessive thought is much more disturbing since one's body is the most precious thing to a person. So, repetitive notions that overawe one

with fearful or worrying thought cause much more anxiety and concern than ones that overpower the mind with what a person loves or greatly wishes to possess. The latter is always associated with some of the imagined pleasure of realizing one's desires. (Badri, 2013, p. 58)

Al-Balkhī's expertise is not limited to his conceptualization of obsessionality. He gives much practical advice on effective ways to treat it. His methods are highly consistent with those of modern Cognitive Behavioral Therapy. "What is astonishing reading al-Balkhī's manuscript is the similarity between them, that is what these modern cognitive therapists say and do and what he theorized and applied" (Badri, 2013, pp. 17–18). Al-Balkhī advises that the person with obsessions consider that though they cause fear, they are not dangerous. This is a construct that underlies Exposure and Response Prevention, a type of CBT that is effective for OCD (Foa & Goldstein, 1978; Foa & Kozak, 1986). It serves to reduce the avoidance of the feared thought, and the repetition of it leads to habituation, which he also describes.

A person will come to realize that his negative whispers would not endanger his life or cause him to suffer incapacitating disease allowing him to tolerate and live happily with them. The fact that they are afflicting him because of his inherited predisposition, his inability to change, would further support him in tolerating them ... he will gradually become accustomed to them and they would cease to frighten him, particularly when he realizes that his vulnerability ... is the result of his disposition and temperament. Such thoughts should be employed by one who suffers from harmful obsessive whispering in order to counteract the symptom. (Badri, 2013, p. 64)

Al-Balkhī (Badri, 2013) also suggests using counter-arguments "against his inner negative self-talk" that can "neutralize or even cancel out the negative whispers of his

consciousness ... in many ways similar to someone arguing in a court of law against the allegations raised by the opponent, falsifying the claims and rendering them invalid and illogical” (p. 63). Badri notes that this is an excellent description of Rational Cognitive Therapy also currently used to treat OCD.

Al-Balkhī (Badri, 2013) also recommends preventative measures. OCD sufferers should “avoid idleness and unemployment” which can cause such loneliness that it can induce persistently negative thoughts (p. 61). Actively pursuing positive experiences is another preventive strategy he recommends. “Any novel pleasurable experience will have an effect for some time, thus the afflicted person may need these constant changes so long as his suffering continues” (p. 62). As isolation exacerbates symptoms, Al-Balkhī advises avoiding spending much time alone as well as situations that cause loneliness (p. 60).

The benefits of social interaction between humans, whether they are living in their towns or traveling, is so highly considered that it has become a well-known Arabic saying that, “the lone person is a devil.” Numerous tales in the literature recount stories of those who traveled alone going through unfamiliar harsh terrain without companions only to end up suffering unendurable catastrophes, untimely death or aimless wandering and mental illness. This is why we place emphasis on the person being tested with obsessive self-talking whispers to avoid being alone. (Badri, 2013, p. 61)

To family and friends, al-Balkhī advises they should not leave the obsessional alone for long periods of time due to the propensity for morbid rumination that exacerbates obsessions.

An additional mental tactic is for the afflicted person to choose some sincere and trusted relatives or friends, who really love him and wish for his good health and happiness, in order to frankly discuss his problem with them and listen to their counsel and advice.

They will expose to him the erroneous nature and irrationality of his negative self-talk.

This can be very valuable in restraining the sufferer's pessimistic thoughts. (Badri, 2013, p. 62)

Badri notes that "in telling the patient to choose trustworthy loving friends, al-Balkhī is actually talking about the positive qualities of a counselor as we see them today" (Badri, 2013, p. 62). Further, being in the company of others allows the obsessional person to reality check the veracity of their obsessions with trusted confidantes (Badri, 2013, p. 62).

One more mental tactic is for the person afflicted to observe the way people around him react to his terrifying or sad inner whispers which are causing him to demoralize himself or destabilize the way he lives. He should reason with himself that if his harmful whispers and self-talk had any reality then surely people around him would have been disturbed. And since as clearly apparent they are not, for people in general will only be alarmed by real threatening dangers they can actually perceive, then it must follow that this negative thought must be unreal, just like the delusions of the mentally disturbed.

This can be a useful thought against the obsessive symptom. (Badri, 2013, p. 64)

Al-Balkhī notes that proactive strategies can be effective in preventing escalation of obsessions to a more serious condition that "if left untreated ... may develop into an incapacitating disease" (Badri, 2013, p. 63). "When the negative thoughts begin their assault with minor doses," a "thought antidote at the early stages of a psychological disorder of the soul may prevent or greatly reduce the effect of a future psychological catastrophe" (Badri, 2013, p. 63). Al-Balkhī exhorts that the obsessive person should not suffer in silence.

He should not be misled by the erroneous belief that a psychological symptom of this nature is untreatable usually afflicting certain people who then have to live with it. On the

contrary, he should strongly hold on to the conviction that Allah has not created a disease of the body or a disorder of the soul without creating its antidote. Thus whenever a disease or disorder, whether physical or psychological, is treated with its suitable antidote, it will either be totally cured or at least it's painful or negative effects will be reduced. Even in the latter case one should accept the fact that reducing the severity of a symptom is much better than leaving it untreated until it worsens and causes much more harm. (Badri, 2013, p. 59)

Al-Balkhī's observations about the course of disease from onset to rehabilitation is helpful advice even today. He took the innovative stance that most mental disease can be prevented with appropriate response to early indicators. He possesses keen insight about the human condition and interaction of both psychological and biological processes. His observation of the familial concordance and heritability of obsessive thinking has been corroborated by modern genetic studies (The Brainstorm Consortium et al., 2018; Mas et al., 2013). Al-Balkhī's insistence that mental and physical health are inseparable was still a novel perspective several centuries after the Hippocratics of the third- and fourth-century determined that "most illnesses have natural—and not supernatural—causes" (Lagay, 2002, p. 206).

Al-Balkhī's insights as to the causes of the physical body manifesting psychological symptoms of obsession is, however, limited by the medical science of his era. He attributes classic OCD obsessions to "a dominance of black bile in the body," while OCPD-like obsessiveness originates from "a disproportion in his humors. He does not directly inherit a high proportion of black bile, but he inherits a mixture of yellow bile and phlegm" (Badri, 2013, p. 54–55). This humoral explanation of disease has been disproven by modern science, but was

transmitted to the medical science of the European Renaissance and continued to be accepted as a model of disease until the mid-1800s (Lagay, 2002).

Their notion that 4 bodily fluids—blood, phlegm, yellow bile, and black bile—caused illness persisted for more than 2000 years in the West until the rise of controlled empirical science in the mid-19th century. Humoral medicine’s most compelling claim on our attention, though, is its belief that health and its opposite, disease, were due to complex interactions among an individual’s 4 internal humors, his lifestyle and habits, and his environment. (Lagay, 2002, p. 206)

Al-Balkhī’s astute observations and incisive therapeutic advice has now been tested empirically and proven effective by modern research methods. It is a remarkable achievement for any practitioner, and all the more astonishing considering he recorded his wisdom nearly 1,200 years ago.

Jewish History and Rabbinical Interpretation of Scrupulous Practices

Though it is not noted or even alluded to, it is possible, perhaps even likely that al-Balkhī’s work may have influenced others’ conceptualizations of OCD in successive centuries. Writings from the 9th through 12th centuries do not usually allude to scrupulous practices, nor do not they often contain practice advice for its management. That makes the few historical sources that do reveal awareness of scrupulosity especially valuable for placing such knowledge in a proper understanding of its limited context and influence.

Rabbi Meir of Rothenburg

Similarities to al-Balkhī’s observations of symptoms of OCD and recommendations for handling scrupulosity can be found in the writings of Rabbi Meir ben Baruch of Rothenburg (1215–1293), popularly known by the abbreviation “MaHaRaM” (*Moreinu Horav Reb Meir*)

(Mindel, n.d.). Rabbi Meir provides a significant source of information about early interpretations of Jewish law and tradition related to scrupulosity in the early Middle Ages in Europe. His was a strong voice in defense of Jewish values and way of life (Agus, 1970).

Rabbi Meir became universally acknowledged as the leading authority on *Talmud* and Jewish law, and many communities in France, Italy and Germany frequently turned to him for instruction and guidance in all religious matters and on various points of law.

(Mindel, n.d.).

Rabbi Meir's scholarship set the direction for future interpretation of Jewish law in the surrounding regions of Europe for the next six centuries. He lived in a time of increasing marginalization of European Jews in public life before coordinated subjugation and persecution from the Catholic Church resulted in centuries of pogroms (Agus, 1970). Rabbi Meir himself was imprisoned and held for ransom for the last seven years of his life on a trumped up charge of sedition. He steadfastly refused to allow some of his wealthy friends to pay for his release fearing such tactics would spread rapidly, and many other notable rabbis would suffer the same fate (Mindel, n.d.).

Rabbi Meir's interpretations carried the moral weight of law due to widespread respect for his long years of study, though he had no actual authoritarian position from which to enforce his judgments. His well-preserved collection of *Responsa*, written answers to inquiries from Jews all over Europe on matters of "minute details of ritual observance" (Agus, 1970, p. 30), is written in such detail that his work is considered "highly trustworthy and furnishes very accurate historical data" (p. xvi). He upheld with "deep reverence" the traditional views of such scholars as the Gaonate, the central religious authority for the Babylonian Jews and subsequent diaspora throughout Europe and Northern Africa, and other intervening "highly authoritative"

commentaries on the *Talmud* from “R. Hananel, Alfasi, Maimonides, Rashi, and the Tosaphists” (p. xvii), rabbis from the 12th through 15th centuries in Europe. Meir’s writings set the standard for practical problem-solving with an emphasis on prioritizing not only what was right action, but with concern for causing the least amount of harm to the individuals involved. Due to his extensive writings on “minute details of proper conduct” (p. 41), Rabbi Meir could be assumed to be extremely stern and unbending; however, he was “quite lenient in ritual matters ... many of his decisions regarding forbidden food, salting and preparing meat, and similar topics, begin with the words: “R. Meir permits” (p. 41). In direct contradiction of his predecessors, his liberal view of marriage and divorce occasioned threats of excommunication when he granted leniency. “At times he even displayed a sense of humor and poked fun at the over-stringent pietists” (Agus, 1970, p. 42).

Paradoxically, Rabbi Meir may have suffered from scrupulosity himself while not enforcing his concrete interpretation of the same laws on his community. He was revered for his strict adherence to the law and perfectionistic mindset regarding his personal religious practice, but did not enforce this perfectionism on others even when it would have been justifiably strict to the letter of the law (Agus, 1970). Perhaps he recognized the absurdity of some of his personal practices and the futility of enforcing the same on others less scrupulous.

How then can we explain the strange contradictions of the man who scrupulously observed hundreds of minute details of ritual law in his personal conduct, who repeated on *Shemini Azeret* the formula . . . ninety times in order to make sure that he would not fail to include the formula in his subsequent prayers, who tied his hat by a band to the girdle, on the Sabbath, in order to secure it to his head and thus avoid the necessity of ever having to pick it up on the street,—that such a man should allow the use of meat

unsalted for three days, should permit a married woman, who obviously had illicit relations with another man, to resume her marital relations with her husband, and should grant a bride, who was betrothed in the presence of disqualified witnesses, the right to marry another man without the necessity of previously obtaining a divorce? (Agus, 1970, p. 42)

Rabbi Meir's detailed explanations of his legal opinions reveal a scrupulous conscience tempered with good-natured practicality when judging others. He had the wisdom to not encourage the same degree of fastidious scrupulosity as the only acceptable practice of Judaism. In one instance, scrupulous reading of Jewish law would have prohibited him from picking up a burning candle spilled on the Sabbath and prevented his house from burning down (Agus, 1970).

A careful study of Rabbi Meir's decisions, however, reveals the fact that he was very strict and exacting. Whenever a problem arose, whether or not a person should perform a certain act, and if so, in what manner, but that he was quite lenient after the act had already taken place. Thus he took great care in establishing the proper prayer ritual, and determining the fitting blessing for each occasion, and deciding upon the safest method of baking matza, and avoiding a situation that might cause the breaking of the Sabbath laws. He was lenient, however, after the forbidden deed was done, after the fly was already in the soup . . . He even permitted one to shake off a burning candle that fell on the table on the Sabbath even though this act is explicitly prohibited by the Palestinian *Talmud*. (Agus, 1970, p. 42)

In Rabbi Meir's writings, there is no indication of distress that would indicate a clinical diagnosis of OCD could be warranted by today's criteria. That he was not troubled by his personal perfectionism or considered it in any way to be harmful to his wellbeing indicates rather

a propensity for OCPD, though this seems unwarranted by his lack of rigidity and generous and, at times, humorous treatment of others. The dichotomy of Rabbi Meir's scrupulous personal religious practice and his liberal interpretation when necessary to reduce or prevent harm to others is revealed in many similar anecdotes (Agus, 1970).

This deep-seated psychological trait of R. Meir reveals itself, especially in his decisions regarding women and divorce. Thus it happened in a drinking hall in Esslingen, where young men and young ladies were indulging and drink and merriment, that a young lady (Leah) jokingly, asked a young man (A.) to marry her. The young man borrowed a ring, threw it in her lap, and pronounced the betrothal formula. The case was brought before R. Meir, who pointed out several reasons why no divorce should be required, and added: "If my teachers agree with my decision, all will be well. But if they will not agree, I shall subscribe to whatever they decide to do. However, I would prefer not to be strict in this matter, and not to require Leah to obtain a divorce, less A. become rebellious, and refused to divorce her, unless he travel to a distant land, and thus render it impossible for the unfortunate woman ever to Mary (sic) again." R. Meir knew that he was treading on very dangerous ground, that he was dealing with adultery, one of the greatest sins in the Jewish religion, and yet he chose to be lenient ... Thus we see that in important matters R. Mayer (sic) showed strength of character and determination, and that when matters vitally important depended on his ruling, he used his most ingenuity in order to arrive at a lenient decision. (Agus, 1970, pp. 44–45)

This ingenuity and practicality in deciding matters related to scrupulosity for Judaism in European culture of the early Middle Ages may have been an influence on later Catholic interpretation of canon in like matters. Certainly, his was a forerunner of the church's practical

advice to priests dealing with overly scrupulous religious practice among their flock in subsequent centuries (Agus, 1970).

Scrupulosity in Catholic Europe During the Renaissance

In the 14th through 16th centuries, European culture was transformed by “unparalleled scientific and geographical discoveries, and revolutionary trends in literature, architecture, and the fine arts” (Osborn, 2008, p. 31). Central to these changes was a newfound sense of individualism which became the hallmark of Renaissance thought seen in newly humanistic interpretations of science and religion (Osborn, 2008). The Catholic Church embraced a new progressive philosophy based on St. Thomas Aquinas’ writings advocating the use of reason to improve people’s lives (Osborn, 2023). “It was only with the rise of individualism that the average person—or, at least, the average adult male—began to believe that he could determine his own destiny” (Osborn, 2008, p. 32). With this newly realized personal agency came a “significant downside to this sense of empowerment” (p. 32).

The new focus on the self introduced a new dimension of concern. The feeling of increased ability meant magnified responsibility. ... The door was opened to a new plague of worries centered on the uncertainties of self-determination. (Osborn, 2008, p. 32)

This monumental shift toward personal responsibility signified a shift within the Catholic Church where “each Christian was expected to closely examine where he or she stood” (Osborn, 2008, p. 33) on important moral issues.

The fundamental assumption became that the average Christian can know and weigh his sins, because the church teaches that rational man is free and responsible, and he can apply this teaching to his life. (Tentler, 1977, quoted in Osborn, 2008, p. 33)

The notion that the use of reason could be used to determine theological interpretation had first arisen from monasteries within the Catholic Church in the late Middle Ages. Monastic dynasties fostered the work of individual scholarly monks who wrote letters advocating their interpretations of the Bible during a time when the scriptures were unavailable to the common man and local church (Ciarrocchi, 1995). However, unlike Rabbi Meir and the independent European Jewish communities, the Catholic Church sought to centralize its authority on all issues religious and philosophical.

Newly formed universities arising from the monastic dominions began to advocate scholarly focus on Moral Theology (Osborn, 2023). The church endorsed the idea that individual responsibility for one's standing with God demanded adherence to a strict moral and religious code which, in turn, demanded adherence to increasingly detailed prohibitions (Ciarrocchi, 1995).

Early in the Renaissance, a new intellectual discipline arose in the Catholic Church, its task was to clarify the nature and gravity of the sins for which a person should be held responsible. . . prior to the Renaissance, there were only three sins that would inevitably cause a person to lose salvation (murder, adultery, and idolatry), by its end there were literally hundreds. (Osborn, 2008, p. 33)

The focus on individualism meant a greater focus on individual guilt, hence, a need for individual forgiveness. At the Fourth Lateran Council, Pope Innocent III made a new holy sacrament out of what was formerly a public confession of sins among the corporate body of parishioners that had been reserved for "sins that seriously damaged the fabric of the community" (Osborn, 2008, p. 36). The sacrament of confession became "an instrument of social control in late medieval Europe" (Steinmetz, 1978, p. 448), though one enacted on the culture at

large through individual responsibility and control by the local clergy, who was both investigator and judge. “The requirement of annual confession under threat of excommunication for nonconformity meant that it was essential that confessors understand both the requirements of a proper confession and the relative gravity of various sins” (Buck, 1977, p. 49). The purpose was to root out heresy and impose order on the sinful in a hierarchical order of worst to least offensive to God.

The medieval penitent’s confession had to be both “good” and “complete.” A “good” confession was simple, humble, motivated by right intention, truthful, frequent, and told in discreet language. A “complete” confession had to be methodical, deliberate, and extensive. In practice, this meant that the penitent had to examine his conscience according to categories of sin, using, for example, the five senses, the Ten Commandments, or the seven deadly sins to help guide his introspection. This examination of conscience, furthermore, had to place sins in the context of “aggravating circumstances,” that is, the penitent had to tell his confessor about any conditions that might intensify the gravity of an offense. To avoid missing a circumstance, the penitent was given a mnemonic device such as the following verse from England: “Who, what and where, by what helpe and by whose; Why, how, and when, doe many things disclose.” (Buck, 1977, pp. 49–50)

In the later stages of the Renaissance, mental illness, especially depression, was rampant (Osborn, 2023). This was in no small way aided and abetted by Church doctrine instituted in 1215 by Pope Innocent III and expanded greatly in the following centuries that emphasized the responsibility of every sinner to ensure their place in heaven with thorough and regular enforced confession of their sins. From the early to late middle ages, the focus of confession and penance

gradually shifted from gaining control over the corporate sin of the community to “the much more individualized world of the later Middle Ages” where “medieval piety was related to certain central Reformation—and especially Lutheran—concerns” (McCue, n.d., p. 1). However, “sixteenth-century Roman Catholicism continued to find sacramental penance spiritually meaningful” (McCue, n.d., p. 1). Otherwise, when compulsive confession was abolished, “How was it that late-medieval sacramental penance could survive the polemics of the Reformation for more than four centuries within Roman Catholicism and then, so abruptly and quietly, largely disappear?” (McCue, n.d., p. 2). In recent decades, the Church has distanced itself from the compulsive aspect of confession and refocused messaging about the Sacrament of Confession on its spiritual benefits. However, it is still recommended, though not enforced, that Catholics who are aware they have committed a serious, mortal sin confess at least once a year and clear the slate. This softer approach by the Church at last relinquishes some social control despite the persistence of serious social issues in contemporary Christian culture (McCue, n.d.).

Such social ills have historically compounded the Church’s influence on culture. As the Renaissance progressed, social upheaval led to multiple lengthy wars, the Bubonic Plague had made several rounds had reduced the population by nearly 50%, and petty crimes were made punishable by death. “Death was on people’s minds to a degree that is hard to imagine today. Many thought the end of the world was near” (Osborn, 2023, pp. 7–8). Since survival until the following year’s confession was not assured, confession was encouraged more regularly until it became a weekly practice. “By the end of the thirteenth century, confession of sins was considered divinely instituted, obligatory, and necessary for the remission of sins” (p. 36).

With such increased focus on sin, it was not just sinful acts that needed confession. “Moral theologians also reached the conclusion that thoughts about sinful acts could represent

mortal sins. Entertaining the idea to hurt another person, for example, could be as grave a sin as committing the crime” (Osborn, 2023, p. 9). In penitential manuals instructing clergy how to enact rituals of penance, priests were instructed in how to interrogate for not just any sinful actions, but any prior intent to sin, and any wicked thoughts that could possibly be interpreted as future intent to sin. A detailed inquiry must be made into each of the seven deadly sins. “One of the stated goals of confession was to provoke an acute sense of fear over the possible loss of salvation...in the conduct of confession there was “nothing to fear but the lack of fear”” (Osborn, 2023, p. 37). The confessor then would direct the sinner to make a monetary penance to the Church to avoid eternal damnation.

Christians were interrogated thoroughly and frequently. “As confession took shape primarily as an inquisition, many people of tender conscience were driven to agonizing states of anxiety over sins they may have committed. People confessed again and again, adding small details they might have forgotten” (Osborn, 2023, p. 37). No sin was too small for concern, even the contemplation of it. Moral Theology was concerned both with the outcome and the process of committing sins. Church doctrine emphasized having the thought of a sin was as serious as actually committing the sin. They justified their conclusion using novel scholarly opinions of Bible verses that could be interpreted to support this view.

You have heard that it was said unto those of the old time, Thou shalt not kill; and whosoever shall kill shall be in danger of the judgment: But I say unto you, That whosoever is angry with his brother without a cause shall be in danger of the judgment.

(King James Bible, 1769/2017, Matthew 5: 21-22.)

This mistaken merging of thought and action is a common error in cognition experienced by OCD sufferers known as “Thought-Action Fusion” (Shafran et al., 1996). To have the Church

reinforce their worst fears “caused agonizing torment and provoked severe compulsions such as endlessly repeated prayers and acts of faith” (Osborn, 2008, p. 39).

In the case of blasphemous thoughts, the church’s interpretation of sin and one’s innate motivations for it were conditional on one’s religious status. When monks and nuns suffered intrusive blasphemous thoughts, they were considered to be tested by God in order to achieve loftier heights of holiness as part of their religious vocation. However, lay people with the same symptoms were presumed to be under demonic attack, and their blasphemous thoughts were “taken as a sign of demonic possession” (Osborn, 2008, p. 43). If a person lingered on such thoughts, even if they were disturbed by them, it was an indication of a sinful state of mind and must be dealt with harshly lest the Church lose control of this person’s negative influence and sin spread like a social disease. Thomas à Kempis, a Dutch-German cleric of the 15th century, wrote of this issue in his widely read *Imitation of Christ*:

The enemy suggests many evil thoughts. ... Say to him, “Away unclean spirit! Shame miserable creature! You are but filth to bring such things to my ears! ... I would rather die and suffer all torture than consent to you! Be still! Be silent!” (Kempis, as cited in Osborn, 2008, p. 40)

If having a thought could be judged as sinful as committing the act, then it was imperative on the individual to resist those thoughts, with the unfortunate outcome of increasing the prevalence and severity of these intrusive thoughts. This is a classic manifestation of onset of obsessions from the reciprocal relationship between the belief that thoughts are as important as actions and thought suppression (Rassin et al., 2000). The Church enforced extensive personal confession as an act of compulsion meant to absolve the mental sin and hence resolve the obsession, but unwittingly, it created the perfect conditions for an enormous increase of clinical

obsessive–compulsive disorder. “When the church made the thinking of certain thoughts a mortal sin, it opened the door to a plague of obsessional fears” (Osborn, 2008, p. 39). This was however, positively ascribed to enhanced religiosity and not perceived as the root of the problem despite the distress it caused.

St. Teresa of Avila

Fasting was a common act of penitence prescribed by the Church, along with self-flagellation. Extremely restrictive “holy fasting” among monks, nuns and even the laity took on epidemic proportions. Up to half of nuns during the Renaissance starved themselves to the point of failing health, influenced strongly by the example, among others, of St. Teresa of Avila (1515–1582), a Carmelite nun and the first of only four women to have been named a “doctor of the church,” one of 37 saints whose writings are considered to be “true and timeless” as foundational to the faith. St. Teresa led the Counter-Reformation of the Church and was “the originator of the Carmelite Reform that restored a contemplative and austere life to the order” (“St. Teresa of Ávila: Spanish Mystic,” 2024). Nuns who practiced routine prolonged fasting exhibited extreme anxiety and excessive guilt that was often positively portrayed as a serious commitment to spiritual growth (Osborn, 2008). Today, it is commonly recognized that descriptions of extreme weight loss, loss of hunger, and delusions about needing to control their food intake would meet clinical criteria for Anorexia Nervosa, a common comorbid condition with OCD (Holden, 1990; Rothenberg, 1986).

St. Teresa of Avila also advocated self-harming practices such as flagellation, intended to help reach ecstatic heights of mystical experience. Self-flagellation was another common practice prescribed as penance for centuries by the Church among the nuns and monks of many orders such as the Franciscans, Cistercians, Carthusians, Trappists, as well as the Carmelites

(Cooper, 1869). Flagellation had been widely practiced for discipline of religious novices in the monasteries and abbeys of the 1200s–1400s along with fasting and enforced silence and solitude. “The practice of flagellation had long been accepted by the Church as a mode of penance” (Kieckhefer, 1974, p. 157). These practices spread to the laity through the community priests, and from there to common practice among like-minded of the religious uninitiated. After the Black Death of 1348–1350, “Designed to ward off God’s wrath and arrest the progress of the disease ... thousands of men ... joined in processions and went from town to town, flagellating themselves in public” (Kieckhefer, 1974, p. 157). In 1349, Pope Clement VI issued a papal bull “condemning the movement as a form of heresy and calling for its suppression by ecclesiastical and secular authorities” (Kieckhefer, 1974, p. 157). A large body of flagellation adherents in the German provinces became radicalized against the Church’s leadership and control tactics (Cooper, 1869). While the Church declared flagellants heretical and banned the practice, the movement went underground until it was properly exhibited within the confines of Church authority again, as exemplified by St. Teresa.

Unlike the Church’s formal acceptance of extreme fasting in times of spiritual crisis or to further one’s growth in faith, the practice of flagellation has remained on the fringe of Catholicism to this day, though for some Catholics it is not considered an extremist practice (McKenna, 2024). “Flagellation was a common ascetical practice in the Church for a very long time. Many saints practiced it. And, it remains a common practice in monasteries throughout the world; it is not merely an archaic relic” (McKenna, 2024). The argument appeals to Catholics who desire to deepen their spiritual experience by emulating Jesus’ voluntary physical suffering on the cross.

Flagellation is not immoral. It ought not be merely an ancient practice, something the extremists of the past did. It is a helpful way for people to grow in virtue by conquering the desires of their flesh. Given that sins of the flesh are extremely common, it seems that flagellation is needed. Indeed, it can be an especially useful tool from the perspective of classical conditioning, as a form of negative reinforcement after sin in order to help dissuade one from doing that sin in the future. Again, this may seem extreme, but scripture is clear that corporeal punishments are not inherently immoral, “He who spares the rod hates his son, but he who loves him is diligent to discipline him” (Proverbs 13:24). (McKenna, 2024)

In both self-flagellation and extreme fasting, subjugation of one’s body is considered to elevate spirituality over corporeality. Because self-harming practices can lead to addictive behavior due to naturally occurring endogenous opioids when the body is injured, it is interesting that these practices became so widespread with excessive fervor akin to addiction to self-injury behaviors noted in contemporary research (Sandman & Hetrick, 1995). The obsessiveness and persistence of the practice clearly drifts into the realm of obsessive–compulsive symptoms. Conditions in Europe in the late Middle Ages led to its proliferation on a wide scale.

In such a religious and political climate, is it any wonder that scrupulosity became a widespread phenomenon? “Scrupulosity was rarely mentioned in the first five or six centuries of Christian writings; its appearance became commonplace only during the Renaissance” (Osborn, 2008, p. 11). By the 15th century, however, “mild cases of scrupulosity were considered entirely normal” (p. 11) and literary references were replete. The word “scruple” had formerly been understood to be “an excessive fear of having sinned;” at this time, it took on the secular, modern

meaning of “moral integrity: acting in strict regard for what is considered right or proper” (Merriam-Webster, 2014).

The Catholic Church continued to train seminarians in Moral Theology until reforms were made by the Second Vatican Council, convened 1962–1965 (Ciarrocchi, 1995). An updated training manual for seminarians at that time attempted to incorporate psychological understanding of what had formerly been considered a wholly religious issue. It advised, “the basic factor in a scrupulous conscience is not so much error as fear” (Ciarrocchi, 1995, p. 49).

The Catholic Church recognized the suffering of those with an overly sensitive conscience and typically sought to allay their fears. In the case of scrupulosity, widely known during the Middle Ages and Renaissance as the “doubting disease” (Cefalu, 2010), pathological doubt prevents the OCD sufferer from determining when no sin has been committed. As early as the 15th and 16th centuries, scrupulosity was conceptualized as a problem of conscience resulting in excessive doubt. This easily could lead to a logical conundrum. “Moral Theology held that people are obligated to follow their conscience, but that a person has an obligation to inform his or her conscience (i.e., bring it into conformity with objectively correct behavior)” (Ciarrocchi, 1995, p. 48). However, the problem of excessive doubt made it impossible to resolve the questions of conscience in order to act rightly. To sidestep the dilemma, the church devised a practical solution—pathological doubt does not need to be resolved before taking action.

To solve the quandary theologians applied the principle of an erroneous conscience ... one not in conformity with the objective reality of a moral act. ... In the case of scrupulosity the person sees sin where there is none. Labeling a scrupulous conscience as erroneous was liberating for the person. Since an erroneous conscience could not “bind” a

person to follow its direction, a scrupulous person is free to act without resolving the doubt. (Ciarrocchi, 1995, pp. 48–49)

The church developed pastoral strategies such as this to permit “exemptions to laws and practices required of the non-scrupulous” (Ciarrocchi, 1995, p. 49). This presages by several hundred years the principles of behavioral therapy developed in the last century. The Liguori Society still advises Catholics on matters of scrupulosity with similar practical advice in a monthly newsletter, *Scrupulous Anonymous*, published continuously for over 60 years (Santa, 2024).

Notable Historical Figures with Symptoms of Scrupulosity

In attempting to bridge both the historical gap between religious viewpoints and modern psychopathological knowledge on scrupulosity, better informed integration of religious and psychological perspectives stands to enrich both. However, caution is advised to avoid decontextualizing our post-modern interpretations of history (Cefalu, 2010). “Any attempt to project OCD onto earlier historical figures should take care to consider the social, philosophical, and theological contexts in which such figures lived” (Cefalu, 2010, p. 123). It is important to recognize the many changing social influences on culture without which many common psychological maladies in previous eras were not formerly considered to be abnormal.

What early modern non-pathological obsessiveness shows is that a culture’s organizing worldview can create both the conditions under which obsessions and compulsions might emerge, as well as historically particular evaluative criteria that might depart from 21st-century measurements of OCD. (Cefalu, 2010, p. 123)

Awareness of such contextual and cultural factors is prescribed in the conceptualization and diagnostic process of psychopathology stipulated by the American Psychiatric Association

(APA) in its *Diagnostic and Statistical Manual of Mental Disorders* from earlier versions through the present edition (American Psychiatric Association, 2017, 2022).

It is worth noting that the compilers of the DSM IV seem to anticipate this historicizing objection to their ahistorical list of symptom clusters for OCD by maintaining that “culturally prescribed ritual behavior is not in itself indicative of obsessive–compulsive disorder unless it exceeds cultural norms, occurs at times and places judged inappropriate by others of the same culture, and interferes with social role functioning.” But this actually compounds rather than resolves the problem of retrospectively diagnosing cases of OCD. Users of the DSM are tacitly asked to become interpreters of not only individual symptoms but also cultural norms. (Cefalu, 2010, p. 123)

However, with this admonition in mind, there is still much to be gained from a thorough study of the variety of personal experiences of people with scrupulosity symptoms in various historical, religious, and social contexts. From the 17th through 19th centuries, such notable Christian historical figures such as St. Ignatius of Loyola, Martin Luther, John Bunyan, St. Jane de Chantal, St. Therese of Lisieux, and St. Alphonsus Liguori wrote descriptions of their personal suffering from scrupulosity (C. H. Miller & Hedges, 2008; Osborn, 2008). Of these, only Martin Luther, John Bunyan, and St. Therese of Lisieux achieved any relief from their symptoms of severe OCD. Each came to a spiritual understanding in their own ways that they were unable to resolve their scrupulosity by their own striving, and each deepened their faith and dependence on their relationship with God to help them by allowing God to shoulder responsibility for resolving these issues for them (Osborn, 2008).

St. Ignatius of Loyola

In his autobiographical work *Spiritual Exercises*, St. Ignatius of Loyola (1491–1556) offers additional clarity about his errors in judgment and pathological doubt in the section, “Helpful Notes for the perception and understanding of scruples and of the insinuation of the enemy.”

Note 1: People commonly give the name “scruple” to something coming from our judgement and freedom, i.e., the situation when I freely take something to be sin which is not a sin, as would be the case if a person, having accidentally trodden on a cross formed by two straws, were to make the personal judgement that a sin had been committed.

Properly speaking this is an error of judgement, not a scruple in the true sense. Note 2:

After I have trodden on that cross, or indeed after anything I may have thought, said or done, the idea may come to me from outside myself that I have sinned, while on the other hand it seems to me that I have not sinned; (however) I feel troubled about the matter, doubting and at the same time not doubting it. It is this that is a “scruple” properly so-called, and a temptation suggested by the enemy. (Loyola, 1548, p. 355)

St. Ignatius clearly describes both the capacity of the scrupulous to examine their behavior and reasoning with overzealous legalism and illuminates the circuitous indecision of their mental processes. He is at once aware of the extremely impossible judgmental standard to which he holds himself, and that it originates in his own faulty judgment. However, he also reveals paradoxical underlying pride of a “tender conscience” which must be due to having a “good soul.”

Note 3: The first scruple (Note 1) is to be utterly abhorred, being as it is a total error. But for the person seriously committed to the spiritual life, the second (Note 2) is of no small

benefit for a time. Indeed to a great extent it cleanses and purifies such a person, separating his or her spirit far from anything that even looks like a sin (as St. Gregory says, “It is the mark of a good soul to see a fault where there is none”). (Loyola, 1548/1996, p. 355)

Loyola’s pride in developing a “tender conscience” is obvious, but any benefit is short-lived as OCD symptoms tend to proliferate once they have begun. The attribution of his intrusive thoughts to manipulation by a spiritual adversary, Satan or the Devil, was typical of theological thought of his time.

Note 4: The enemy observes closely whether a person is of coarse or sensitive conscience: a sensitive conscience he tries to sensitize still further, to the point of excess, in order to more easily cause trouble and confusion. For instance, he may see that a person consents neither to mortal nor to venial sin, nor anything that looks like deliberate sin at all, and in such a case, unable to make such a person fall into anything that seems to be sin, he endeavours to make that person see sin where there is no sin, as in some word or passing thought. But if the conscience is coarse the enemy tries to make it even more coarse. For example, if up to now a person took no notice at all of venial sins, he will try to make that person take little notice of mortal sins, and in the case of a person who up to now took some notice of them, he will try to diminish the sense of venial sin or eliminate it completely. (Loyola, 1548/1996, p. 355)

St. Ignatius offers surprisingly sound advice for these polarized excesses similar to Cognitive Behavioral Therapy’s principle of opposite action (J. S. Beck, 2020). Opposite action refers to the practice of intentionally choosing to act in a contrary way to the compulsive urge to act. Through opposite action, by essentially not obeying the compulsive urge, the compulsive act

driven by the obsessive thoughts is no longer paired with a decrease in anxiety because the compulsion is unfulfilled. The anxiety felt along with the urge to act becomes habituated to no longer performing the compulsive action. With repetition, these urges decrease in emotional intensity when no longer paired with the feeling of anxiety abating after acting out the compulsion. By tolerating anxious distress rather than acting, the process of habituation to the obsessive thought results in a decrease in anxiety from the obsession and finally, the obsession itself decreases in repetition and loses its power to incite the person's emotions (Foa, 2010; Foa & Goldstein, 1978; Foa & Kozak, 2004).

The person who wishes to progress in the spiritual life must always go *contrario modo* [in the opposite direction] to that of the enemy; i.e., if the enemy is out to make the conscience coarse, one should seek to become more sensitive, and likewise if the enemy tries to refine the conscience to an extreme degree, one should see to establish a position in the just mean, so as to become completely tranquil. (Loyola, 1548/1996, p. 355)

Martin Luther

A contemporary of St. Ignatius, Martin Luther (1483–1546) coincidentally also suffered intense bouts of obsessive–compulsive symptoms (Erikson, 1962; Osborn, 2008). “Luther’s remark that “the more you cleanse yourself, the dirtier you get” is interpreted by the intellectual historian Eric Erikson as a “classic obsessive statement” (Cefalu, 2010).

Obsessive doubts and impulses ... plagued ... Martin Luther. From 1517, when he first celebrated mass, Luther worried greatly for fear he had carried out some trifling act of omission which would be a sin. Blasphemous thoughts pressed in on him; he wanted to confess several times each day. (Rapoport, n.d., p. 112, as cited in Cefalu, 2010)

Luther's famous *95 Theses* nailed to the door of the Catholic Church on October 31, 1517, sparked the Protestant Reformation. He seems to have been inspired by a search for the Biblical sources of common church practices, such as indulgences, by searching the Bible for certainty that the practice was sound interpretation of scripture, but which he could never prove from the source (Erikson, 1962, pp. 188, 226–229). His sincere questions to the Catholic prelates went unanswered. Luther's obsessive inquisitiveness revealed the revolutionary discovery of the extra-biblical origins of many of the Church's practices, which he noted were distinctly unlikely to increase one's spirituality but were very effective means of social control. Luther wrote prolifically criticizing the Catholic Church for centuries of religious abuse of its adherents. His criticism of paying indulgences to the Church to be absolved from sin brought fast reprisal from Pope Leo X, who excommunicated him in 1521 (E. H. Erikson, 1962).

Though Luther seems to have primarily suffered from pathological doubt, he suffered other obsessions, as well (Erikson, 1962; Osborn, 2008). He accounted for his obsessions to torment by the devil (Erikson, 1962).

Fond of comparing the devil to the hind parts, for example, Luther once chastised himself by exclaiming, "I am like ripe shit, and the world is a gigantic ass-hole. We probably will leave each other soon." Drawing on the Freudian contention that anal-retentiveness and a preoccupation with filth reflects a colorful spectrum of pathologies ranging from improper toilet training to outright parental abuse, Luther's biographers have often claimed that Luther's anal-fixation belies his obsessive–compulsive temperament. (Cefalu, 2010, p. 111)

Psychoanalytic insight connects bodily functions with repression, existential fear of death, and a perverse desire for the peace of non-existence, which Freud called the "death drive"

(Freud, 1920). Both these themes appear prominently in Luther's writings, along with Luther's desire to put an end to his continual suffering (Osborn, 2008).

Luther's association of the devil with anal imagery is explainable in terms of Freud's notion of the death instinct. Freud explained that obsessive behavior or the "compulsion to repeat" could be seen as an ongoingly perverse and futile attempt to return to stasis or death. What links Luther's obsessive anality to the death instinct is his abiding notion that, because even God's faithful are hopelessly corrupt and convicted of sin, temporal life already marks a kind of spiritual "death-in-life," which can only be escaped through glorification in the afterlife. (Cefalu, 2010, p. 112)

Luther's central objection that the Bible contains no requirement for the Catholic Church to act as a legal-spiritual mediator between God and man formed the basis for Protestantism's return to the centrality of Christ as a personal mediator as the main religious doctrine of the Protestant church (Erikson, 1962). The centuries of historical effects of this unexpected outcome of Luther's scrupulous search for theological certainty can scarcely be understated as a major force shaping subsequent European and world history. And such a significant outcome to one man's spiritual and psychological struggle makes a strong argument that in the case of scrupulosity, it is of eternal importance that it is addressed effectively and resolved.

Psychiatry Defines "Psychasthenia"

Pierre Janet

With the advent of modern medicine leading to the birth of psychiatry in the mid- to-late-1800s, obsessive-compulsive symptoms were first conceptualized as a medical issue. Pierre Janet (1859–1947) described with startling acuity a serious mental disorder he called "psychasthenia," defined as "a neurotic state characterized especially by phobias,

obsessions, or compulsions that one knows are irrational” (Merriam-Webster, 2014). Janet identified three distinct, progressive stages to this disease, “The psychasthénie state, forced agitations, and obsessions and compulsions proper” (Pitman, 1987, p. 226), which provide a cumulative hierarchy of increasing severity.

The presence of a higher stage implies the presence of the lower one(s). As a patient’s condition worsens, he advances through the stages progressively, and as it improves he loses the symptoms of the more advanced stages before losing those of the lower ones. (Pitman, 1987, p. 226)

Patients in the first stage of psychasthenia were described as plagued by a sense of insufficiency in themselves and incompleteness in their actions, indecision, pervasive doubt, perfectionism, authoritarianism, attentional deficits, and low positive emotions (Pitman, 1987, pp. 226–227). They had difficulty completing tasks because “scruples and misgivings always intervene” (p. 227). These issues “often went back to childhood” (p. 227). While this stage encompassed a general anxiety and uneasiness, it was not generally characterized by affective traits specific to the obsessive–compulsive behaviors, instead it was characterized as arising “acutely under conditions of mental or physical stress” that brought forward more extreme emotional reactions. As such, Janet did not consider the underlying cause to be due to anxiety but an “inclusive, non-reflexive relationship to ruminative and anxiety-depressive symptoms” (Pitman, 1987, p. 228).

The second stage Janet called “forced agitations” (Pitman, 1987, p. 226) added more extreme behaviors, though not yet a fully manifested obsessive–compulsive cycle. Janet believed that the tics that psychasthenics usually developed “are systematized but useless movements produced out of forced volition” that often “have symbolic meaning such as a need for precision

or compensation” and are an “attempt to compensate for an imagined harmful influence” (Pitman, 1987, p. 227).

Forced agitations had the quality of “excessive and repetitive, yet sterile, operations including the mental phenomena of manias and rumination, the motor phenomena of tics and agitation, and the emotional phenomena of phobias and anxiety” (Pitman, 1987, p. 227). These behaviors have the benefit of alleviating anxiety by manifesting a concrete response to an illusory sense of incompleteness and continual uncertainty.

The mental manias are intellectual comparisons, reflections, and interrogations that reflect an exaggerated need for precision and perfection in perceptions and actions and are designed to compensate for a lack of certainty. These include manias of order and symmetry, repetition, and checking. (Pitman, 1987, p. 227)

The mental processes of the second stage are abstract and out of sync with reality. Psychasthenics in the second stage are increasingly avoidant of social situations due to their increasing preoccupation with transient, internally focused obsessive ideas. Their emotional states are often disconnected from their surroundings and reflect the rising internal anxiety of being unable to suppress their obsessive, intrusive thoughts. This anxiety is “the most primitive, more so than fear, because it is without a focus” (Pitman, 1987, p. 227). The acute anxiety is alleviated only by a frank compulsive act which serves to focus their volition and reinforce a sense of control that previously has eluded them. “Because psychasthénie patients reserve the right to disbelieve their own obsessive ideas and impulses and rarely execute them, they symbolize the underlying failure of volition of the psychasthénie state” (Pitman, 1987, p. 227).

The most severe stage is reached with frank obsessions and compulsions that “come to dominate the patient’s mental life” and “usually involve forbidden thoughts and acts of a

sacrilegious, violent, or sexual nature, that often are the ones most objectionable to the patient and most in contrast with what he wishes to do” (Pitman, 1987, p. 227).

Their obsessions and compulsions are “ideas and impulses that are easily evoked, spread to include more and more peripheral ideas” (Pitman, 1987, p. 227) and border on delusion. A common example is “the belief that one is fat when one is actually thin,” which “may be the source of obsessive and bizarre dieting” (p. 227). Janet remarked upon a proclivity of obsessionals who fixated on controlling their food, a correlation seen in current research between OCD and eating disorders. Janet considered anorexia to be an obsessive–compulsive phenomenon of repressing normal hunger (p. 228).

Janet’s keen observations and clinical insight were prescient of how OCD is understood today, but he also identifies a prodromal process before the clearly aberrant third stage of the illness, which we recognize as OCD. The earlier stages of psychasthenia would be determined subclinical in current diagnostic practice. Pitman (1987) comments,

Insofar as Janet treats the psychasthénie state as a less severe form of OCD, his concept is consonant with the notion of an “obsessive spectrum” from normal obsessional behavior, through obsessional personality, to obsessional neurosis, with the important exception that for Janet the psychasthénie state is never normal. (Pitman, 1987, p. 227)

It is also notable that Janet’s ideas arose from a great deal of experience treating extremely sick individuals, which gave him “no difficulty accumulating descriptions of more than 300 cases” (Pitman, 1987, p. 226). His rich description of psychasthenia is helpful in reconceptualizing OCD as not only a spectrum of severity, but also inclusive of affective and cognitive symptoms as well as compulsive behaviors and involuntary movements. In contemporary taxonomy of the DSM-5-TR (American Psychiatric Association, 2022), such

related behaviors as tics, trichotillomania, agoraphobia, social phobia, panic attacks, generalized anxiety, eating disorders, and the rigidity and perfectionism of obsessive compulsive personality disorder occupy separate diagnoses though they are highly comorbid with OCD. In Janet's reasoning, these are all manifestations of the same underlying psychasthenic process that wax and wane in intensity and volitional control with the severity of the illness (Pitman, 1987).

In diagnostic terms, which becomes even more relevant later when considering the taxonomy of scrupulosity within OCD, Janet preferred to "lump" together the disorders, rather than the "splitting" into more discrete disorders preferred by modern psychiatry (Torres et al., 2016). It should be noted that the symptom criteria of "modern American psychiatry does just that, splitting Janet's grouping into ... other disorders" (Pitman, 1987, p. 227).

There is a real difference of approach here, the current American one deriving from criteria originally designed to select narrowly homogeneous subject groups for research, and Janet's approach deriving from the experience of a clinician motivated to identify the factors common to a broader diversity of cases modern evidence of OCD's comorbidity supports Janet's synthesis. (Pitman, 1987, pp. 227–228)

Emil Kraepelin, Eugen Bleuler, and Erwin Stengel

Following Janet, his contemporaries Emil Kraepelin (1856–1926) and Eugen Bleuler (1857–1939), as well as the next-generation psychiatrist, Erwin Stengel (1902–1973), contributed additional insights to defining OCD and what it is not (Grover et al., 2019). "Emil Kraepelin did not consider OCS (obsessive compulsive symptoms) as a psychopathological component of schizophrenia, but he suggested that the evidence of transition from obsessions to paranoia is lacking" (Grover et al., 2019, p. 64). Contemporary analysis of OCD and schizophrenia confirms Kraepelin's opinion (Boyd, 1984). His contemporary, Bleuler, believed

OCS to be one of the “at risk mental states” associated with budding schizophrenia, and described these symptoms as “automatisms in patients with schizophrenia which are comparable to auditory and visual hallucinations, and can be considered as hallucinations of thinking, striving and wanting” which are also “a neurotic condition, independent of symptoms of schizophrenia” (Grover et al., 2019, p. 64). Stengel’s clinical descriptions led to further delineations between psychiatric conditions to encourage reliable diagnosis, which contributed to development of the first edition of the *Diagnostic and Statistical Manual of Mental Disorders*.

Psychoanalysis Fails to Solve the Dilemma of Obsessional Neuroses

Sigmund Freud

Though Janet’s clinical observations mainly focused on traits and presentation of Psychasthenia, his thoughts on the etiology of the disorder aligned with the ideas of repression and unconscious psychic defenses of his protégé, Sigmund Freud (1856–1939). Following Janet’s observations, Freud’s contribution to psychiatry was an explanation of the psychological processes from which the symptoms of mental illness arose. “More than a century ago, Freud linked religious rituals to obsessive–compulsive disorder” (Siev, Abramovitch et al., 2017, p. 696). He theorized a connection between excessive religiosity and obsessions. “In his view, religious rituals and OCD compulsions similarly protect one’s psyche from submitting to temptation” (Siev, Abramovitch et al., 2017, p. 696).

Freud surmised unusual, even bizarre behavior, are simply subconscious tactics commonly used to allay anxiety, a primary emotional state he felt underlaid the primitive drives of human subconscious thought (Mitchell & Black, 2016). Freud’s work provided an answer to the psychological problems Janet identified, as well as a breakthrough for treatment through the practice of psychoanalysis, which could differentiate the origins of common psychological

problems as aberrations of normal behavior and experience during the stages of human development.

In the later theory (Freud, 1913; Jones, 1923; Fenichel, 1945) all neuroses were considered to issue from the Oedipal conflict, the choice of neurosis being determined by fixation. Obsessionals were assumed to be fixated at the anal-sadistic stage. When, in response to intolerable Oedipal conflicts, they regress to this stage, one of two things may happen. If the problems of the anal stage had themselves been adequately solved (i.e., the impulses properly sublimated), the “anal character” developed, with his triad of traits representing the residues of attitudes adopted in toilet-training: orderliness, frugality and obstinacy being at once sublimations, extensions and exaggerations of obedience, retention and defiance, respectively. If, however, the anal stage had itself been left with unsolved conflicts, then the conditions were met for the development of an obsessional neurosis. (Metzner, 1963, p. 232)

Freud’s supposition that conflict in the anal stage could be due to the child’s reaction to parents being unusually harsh in toilet training may strike a modern reader as somewhat ridiculous; however, it presages later descriptions of insecure attachment of children to their parents which have been recently correlated with development of OCD (Seah et al., 2018).

Some of the conditions making for conflict in the anal stage were (1) unusually strong, innate, anal erotism, i.e., pleasure in expulsion, and (2) severity of training which elicits defiant rage, which in turn is linked to guilt via fear of parental punishment. The guilt over hate is given further force by the fact that at this stage a belief in the omnipotence of thought is still operative. The love-hate ambivalence thus generated in the boy vis-a-vis

his mother, is generalized to all areas and leads to the pattern of doubt and questioning.

(Metzner, 1963, p. 232)

However, Freud himself was stymied when attempting to treat obsessive–compulsive patients with psychoanalysis. Working through the patients’ defenses did not resolve their obsessions, much less their compulsive behaviors (Strachey et al., 1959).

Obsessional neurosis presents such a vast multiplicity of phenomena that no efforts have yet succeeded in making a coherent synthesis of all its variations. All we can do is to pick out certain typical correlations; but there is always the risk that we may have overlooked other uniformities of a no less important kind. (Strachey et al., 1959, p. 118)

Freud concluded obsessional neurosis was “unquestionably the most interesting and repaying subject of our analytic research” (Arzul & Cartwright, 2016, p. 1).

Freud (1907) suggested that the symptoms of obsessive compulsive disorder resembled religious rituals. Both rituals and symptoms are repeated in order to allay guilt. Later, Freud (1927) suggested “that religion was the universal obsessional neurosis.” (Yossifova & Loewenthal, 1999, p. 145)

Freud was the first to recognize that compulsions are often a symbolic gesture representing taking action in a pro forma manner when the person is aware that they have no power to enact or prevent a distant event (Lewis, 1994). The compulsion builds with an increasing sense of urgency until the distress from the obsessional thought can be banished by the symbolic act. However, to neutralize this obsessional urgency by performing related compulsions only secures a temporary reprieve (Buchholz et al., 2019; Rachman, 1997).

Freud also noted the clear differences between the two where religious practices are meaningful in every detail and are carried out in accordance with religious norms in

contrast to neurotic symptoms which are pointless even to the person himself let alone to other people. (Al-Solaim & Loewenthal, 2011, p. 169)

The lack of resolution for OCD within the psychoanalytic approach led to a preference for less abstruse approaches in clinical treatment. Psychoanalytic treatment of OCD has fallen out of favor in successive generations of psychologists and psychiatrists because “psychodynamic approaches have little evidence base to justify their use” and “added nothing to the comprehension or resolution of these disorders” (Foa, 2010, p. 200).

OCD was initially viewed as intractable. Psychoanalytic and psychodynamic theories of unconscious drives and wishes produced several formulations of OCD and descriptions of case studies, but did not lead to treatments that reliably resulted in significant reduction of OCD symptoms. Nonetheless, due to lack of alternatives, psychodynamic psychotherapy continued to be administered to patients with OCD despite limited clinical benefit. (Foa, 2010, p. 200)

Until the present day, “psychoanalytic approaches to obsessive-compulsive disorder (OCD) are often considered irrelevant, contraindicated, or primarily supportive, and no psychodynamic treatments aimed specifically at OCD currently exist” (Arzul & Cartwright, 2016, p. 1). However, “psychoanalytically informed approaches still have much to offer in an overall treatment plan” (Gabbard, 2001, p. 208).

Contrary to the prevailing opinion, Arzul and Cartwright (2016), contemporary psychoanalysts in private practice in South Africa, posit that psychoanalysis still has insights to contribute to the understanding and treatment of OCD. They observe that the content of an individual’s “obsessions and the compulsions have conscious and unconscious meanings that may influence investments in symptoms” (p. 4).

Secondly, psychodynamic factors are often involved in the worsening of symptoms.

Thirdly, obsessions and compulsions almost always have an interpersonal significance that is largely unconscious. Fourthly, certain character features tend to undermine treatment efforts. Finally, psychodynamic treatments may represent the last resort in a treatment-resistant situation ... behavioural treatment regimens typically struggle with issues of resistance, transference, and secondary gain. (Arzul & Cartwright, 2016, p. 4)

Arzul and Cartwright (2016) further state that Freud's concept of "reflective function" which "entails the explicit or implicit awareness of mental states as representations of reality from one of a number of possible vantage points" (pp. 5–6) can become a developmental stuck point in which the self fails to distinguish their internal thought processes from their perceptions of the concrete external world. This is a diffusion of ego boundary in which the obsessive-compulsive person "fears intrusions from a malignant external world and the influence of their own destructive thoughts and feelings upon others" (p. 8). The cognitive distortion of thought-action fusion (TAF) is clearly seen in "the defensive construction of rigid rituals and controls to protect the obsessive-compulsive and others from imminent harm" (p. 9).

For explication of what could cause such a boundary diffusion, Arzul and Cartwright (2016) cite the work of Freud's protégé Sándor Ferenczi (1916), who "clearly links the origin of the obsessive-neurotic's impaired reflective functioning to childhood levels of reality functioning" (p. 9).

The child and the obsessional patient ... are only demanding the return of a state that once existed, those "good old days" in which they were "all powerful" by comparing the illogic of obsessional patients to a primary psychical stage where the child believes themselves in possession of "magic thoughts" and "magic words" following the

caregiver's ability to guess their thoughts and fulfill expressed wishes. (Arzul & Cartwright, 2016, p. 9)

Following the authors' and Ferenczi's arguments, the impaired reflective function in the person with OCD allows compulsions to develop out of a desire to exert on the external world their wish to magically control the things which cause anxiety. When they do so, the compulsive action seems to avert a feared outcome, but it works only temporarily; the obsessive–compulsive cycle causes further distress when the intrusive thought persists and the compulsion must be repeated to fend off the feared outcome again and again. This temporary magical act of performing the compulsion reinforces the belief that it wards off the unwanted event through negative reinforcement, which is a particularly pernicious and persistent type of learning reinforcement strategy. This belief in magical control is then negatively reinforced every time the feared outcome does not occur (Arzul & Cartwright, 2016).

Behaviorism Makes Progress with OCD Treatment

O. Hobart Mowrer

Following on the failure of early psychoanalysis to devise an effective therapy for Obsessional Neurosis, Orval Hobart Mowrer (1907–1982) first theorized a cognitive process of obsessional interest based on persistent anxiety followed by the acquisition of compulsive behaviors which quelled it. If his name is less familiar than other prominent early psychologists, it is all the more worth considering his place in the historical development of understanding OCD and also through ethological context of his time and his broad influence on Western popular culture (Page, 2017).

Early in his career, Mowrer was a prominent academic and experimental researcher who bridged the gap between psychoanalysis and behaviorism by attempting to operationalize

psychoanalytic theory into a testable stimulus-response relationship (Page, 2017). He chose to study anxiety, a state he theorized “motivated people in the same way that organic drives did, and behaviors that reduced anxiety acted as a reward and were reinforced” (Page, 2017, p. 6). Mowrer theorized that the pairing of a neutral stimulus with a painful one would produce an association of the neutral stimulus as a signal of impending danger, through an uncomfortable tension felt bodily as a state of anxiety, a point on which he agreed with Freud. However, Mowrer “argued that anxiety was a learned reaction, not an instinctual one” (Page, 2017, p. 6). His early work on behaviorism in the 1940s and 1950s was so influential that researchers in psychology were still working out the practical kinks in how to turn theory into effective therapy 50 years later with the development of cognitive behavioral therapy. He was enormously esteemed in his field and served as the American Psychological Association President in 1954.

Mowrer’s interest in psychoanalysis came from the intensely personal issue of his own anxiety, for which he underwent five-day a week psychoanalysis for several long periods in his adulthood. After a happy childhood, his father had died when he was just 13. His mother withdrew emotionally from him in a prolonged episode of grief (Page, 2017).

She was never again much of a presence in his life. A little over a year later, Mowrer, too, experienced the first of many episodes of psychological trouble when he woke up one morning with a feeling of unreality about himself and the external world. (Page, 2017, p. 5)

Mowrer later attributed his first psychotic break to his struggle with same sex attraction and not his father’s death and mother’s emotional abandonment. Thereafter, every few years, he suffered mental health crises of severe depression and intermittent psychosis. He came to a realization in his analysis that he was repressing latent homosexual desires, which attempting to

suppress had periodically caused him to lose mental control and decompensate into deep, and sometimes psychotic, depression. “He was breaking under the strain of concealing what he called his “ugly sexual perversion”” (Page, 2017, p. 7). After a decade of analysis and failure to resolve his anxiety at its root, at last he confessed to his wife his secret unwanted thoughts.

This hour of confession had more therapeutic value for him than all his time in analysis ... working under the assumption that he was overly repressed, but, he now believed, he had not been repressed at all. He had been suffering from guilt caused by his transgressions, and his confession to his wife relieved him of this guilt. (Page, 2017, p. 8)

Mowrer suffered pathological guilt for his latent homosexuality, and searched for a rationalization for his suffering (Page, 2017). He decided that the problem arose not from theoretical guilt from repressing instinctual desires, as the psychoanalysts espoused, but actual guilt for wrongdoing by transgressing morality. In failing to live up to the demands of his conscience, or, in psychoanalytic terms, his superego, this anxiety was irrepressible. But in this he disagreed with Freud. “Instead of dammed-up libido, it is “dammed-up” moral force and guilt which, as they erupt into consciousness, undergo the qualitative transformation and are experienced, not as guilt, but as anxiety” (Page, 2017, p. 10). “Mowrer disagreed with Freud’s assessment that neurosis and psychosis were caused by repressed false guilt that needed to be treated by insight and awareness so the person could escape from religion’s false guilt and society’s false moralism” (Kelleman, 2023). In other words, Mowrer believed it was not repression of libido, but repression of a guilty conscience that caused his emotional breakdown.

Mowrer next turned to religion to explain his strong, innate sense of morality and found comfort in the strictures of Christian sexual ethics. “His view was that it brought scientific theory into agreement with the world’s religions and demonstrated the validity of social authority and

conscience” (Page, 2017, p. 10). If he could force his conscience to override his intrusive thoughts, he believed he would be free of the depression that stalked him throughout his life.

He believed that his own mental illness was caused by repressed guilt from his sexual desires, and that his confession to his wife was responsible for his recovery. Like many psychologists and psychoanalysts, he believed that he could generalize from his own case. (Page, 2017, p. 10)

From this curious reversal of rationalization, “Mowrer argued that psychology should move back toward a religious understanding of behavioral disturbances” (Page, 2017, p. 8). His great realization of the foundational solidity of Christian morality allowed him to join mentally with an outside authority he believed he could depend upon. He had finally found a way to ease his perpetual state of anxiety.

After his crisis, Mowrer was desperate. Psychoanalysis had failed him. Confession had worked marvelously for a while but did not prevent the latest breakdown. Having few options, he turned to Christianity—not to save his soul but in the hope that it might be able to save him psychologically. (Page, 2017, p. 15)

Mowrer’s epiphany was the answer he had been seeking. He entered a decade of psychological stability during which he wrote several highly influential and popular mass market books. His 1961 bestseller, *Crisis in Psychiatry and Religion*, touched the heart of a mid-century cultural nexus explaining that psychology was at odds with Christianity in its very genesis. “He was tapping into broad opposition to psychoanalysis and clinical psychology, and widespread worries that their modalities and epistemologies might soon replace religious and traditional ones” (Page, 2017, p. 11). Mowrer’s later opinion of psychology, not based in empirical studies but in theory and personal experience, influenced a generation of Americans to return to

traditional beliefs and biblical faith for help with psychological problems. This popular groundswell grew into the Christian Counseling movement still active and somewhat segregated from psychology and psychiatry today.

Mowrer wrote that the crisis in psychiatry was that Freud's concept of guilt obviated any human responsibility for actual harm done. In this, he found more agreement with Cardinal Fulton J. Sheen, Reinhold Niebuhr, and his contemporary religious leaders who conveniently ignored his critique of Christianity (Page, 2017). Mowrer wrote the crisis in religion was that it diminished mankind's appreciation of the value of striving toward moral perfection and the use of real instrumental guilt as a motivational force for changing one's life. In this, he found agreement with the social critique of eminent psychologists of his day, such as Erich Fromm, Henry Stack Sullivan, and Carl Rodgers, who nevertheless questioned his competency in psychology (Kelleman, 2023).

However influential, Mowrer hewed to neither camp's orthodoxy. He soon found disagreement in the basic Christian doctrine of justification by faith (Page, 2017). Reasoning as he did from his own conclusion, Mowrer wrote that justification by faith alone was insufficient for resolving guilt because it made no attempt at restitution, therefore, could not deal effectively with sin's psychological effects. He also argued that psychoanalysis taught a doctrine of justification by insight that avoided the issue of real sin and real guilt, preferring to make it abstract and impersonal by attributing it to instinctual drives over which one had no control. This creates a kind of symbolic guilt that allows one to escape the reality of moral failure. Mowrer argued that great Christian thinkers like St. Paul and Martin Luther got it all wrong and that grace cheapened the value of atoning for sin by doing works that transformed one's character into holiness. In other words, he did not actually believe in Christianity at all, but he did find it to

be an interesting and useful type of psychology for improving oneself (Page, 2017). Further, he felt that Luther's great contribution to the Protestant Reformation, the doctrine of justification by grace by faith alone, created the conditions that actually caused mental illness.

Mowrer took further steps toward unifying his beliefs into self-justifying cohesion despite logical inconsistencies by arguing in later years that a woman who survived incestuous rape in childhood carried the weight of her "sin" despite her victimization, and that eugenics is a preferable answer than allowing the scourge of genetic predisposition to mental illness to proliferate (Page, 2017). Sadly, Mowrer's better arguments succumbed to his worst as he labored to systematize his delusional beliefs.

Where did Mowrer's "everything is repressed true guilt" approach originate? It found its genesis in Mowrer's own personal experience of seeking to remedy his personal sense of a guilty conscience. From Mowrer's own testimony, he struggled with depression, neurosis, and psychosis off and on from his teen years and throughout his adult life until his death by suicide in 1982 at the age of seventy-five. Mowrer intimated that he struggled throughout his life with homosexual desires—and that this was the source of his real guilt. (Kelleman, 2023)

It is worth noting the obvious parallels of scrupulosity with Mowrer's behaviors and rigid adherence to his understanding of Christian morals. He reports waning insight with intense cognitive preoccupation with devising a coherent systematization of his beliefs while also reasoning backward from his overly conscientious conclusion to what he believed to be its cause. Mowrer was very persuasive initially with his peers in psychology during his most productive years. As his mental state declined, he became frustrated with the lack of answers to his cognitive dilemma within his chosen field and turned his attention to excoriating it for its

perceived failures. His books became bestsellers embraced by a popular culture uncomfortable with the implications of understanding human psychology. American culture of the 1950s was much more overtly religious than today, and even those who rejected Christianity's doctrine were well-versed in its instructions for how to live a moral life. Mowrer's insider's critique gave fuel to their fire, but also alienated his peers with his overt rejection of psychology. Instead, his thinking evolved into a strict fundamentalist religious perspective, paradoxically, a perspective that rejected Christianity's foundational beliefs in favor of dogmatic strictures on behavior. In the intervening decades, his work has been understudied within psychology and largely forgotten despite the enduring influence of his groundbreaking early discoveries regarding learning theory (Kelleman, 2023; Page, 2017).

While his personal struggles eclipsed his early brilliance in his later years, Mowrer left a legacy as a hugely influential early psychologist. Trained in behaviorism, Mowrer made an important contribution to resolving the obsessive–compulsive dilemma by experimentally demonstrating that, in accordance with learning theory, “obsessional fears were acquired by classical conditioning and maintained by operant conditioning” (Taylor, 2005, p. 129).

The early learning theory view was that a traumatic learning experience caused, via classical conditioning, certain stimuli to become anxiety-arousing, and that the behaviours which provided relief from this anxiety were strengthened and maintained, becoming compulsions. (de Silva & Marks, 1999)

However, behavioral therapy was not more successful in practical eradication of compulsions than psychoanalysis had been. Metzner (1963) explained that when the original justification for the compulsion is no longer believed, learning theory cannot explain why the washing response is maintained.

This can be done if we make the plausible assumption that compulsive washing is equivalent to the unsuccessful avoidance mentioned above: i.e., the dirty thoughts do not, in fact, go away, or only temporarily do so; or if they do, they are just as likely to reappear again at “random” intervals. It is precisely because the kind of impulses and ideas which the obsessional seeks to avoid are impulses not under his control (obsessive impulses), that all his attempts at complete avoidance are doomed to failure. It seems consistent with learning theory that under such circumstances an ever-widening range of responses should be attempted, so that we end up with the crippling ritual systems described by Frink and Stekel. But it is also in the nature of these kinds of stimuli, e.g., sexual impulses, that they do fluctuate, so that every now and again some anxiety will get reduced—a perfect condition for the maintenance and spread of defensive actions.

(Metzner, 1963, p. 235)

While random pairing of obsessive thoughts and successful avoidance maneuvers are the impetus for the obsessive–compulsive ritual to take hold, the cycle is maintained by negative reinforcement (Carmi et al., 2022). The Two-Factor Theory of Fear proposed by Mowrer (1960) suggested that “obsessional fears were ... maintained by negative reinforcement; that is, avoidance of doorknobs or compulsive washing after coming into contact with a doorknob” (Taylor, 2005, p. 129) in the case of an obsessive fear of contamination. If touching the doorknob could not be avoided, then the risk of contamination could still be reduced, and the fear reduced, as well, by a washing ritual. So, the second stage of the obsessive–compulsive cycle, the compulsion, permits the person to feel they have magically reduced the probability of the feared consequence even if it is unrelated to any realistic ways of reducing that probability (Taylor,

2005, p. 129). Therefore, rational or not, adding the compulsive action leads to a purposeful reduction in fear.

If fear, with its powerful motivational properties, is conditioned to stimuli which are response produced, occurrence of that response will tend, as already indicated, to be blocked: the occurrence or continuation of the response arouses fear and its discontinuation causes the fear to abate. If, on the other hand, fear is conditioned to stimuli not specifically associated with behavior, resolution of the fear will very likely be best achieved, not by inaction, but by action—action which will eliminate the fear-producing stimulus or situation either by removing the affected organism therefrom or by changing the situation. (Mowrer, 1960, p. 26)

The behaviorist's discovery of the powerful effect of negative reinforcement to increase obsessions and compulsions led to further discovery of its corollary process, a reversal of negative reinforcement through extinction of the learned behavior (Carmi et al., 2022). Preventing the compulsion from being performed could reduce the prevalence and persistence of both obsessions and compulsions (Meyer, 1966). Patients were given behavioral therapy in inpatient settings while their environment was strictly controlled to prevent them from completing their ritualized behaviors regardless of the patients' intent to perform them. It was theorized that a strictly behavioral expectation learning process was at work.

Thus, if the obsessional is persuaded or forced to remain in feared situations and prevented from carrying out the rituals, he may discover that the feared consequences no longer take place. Such modification of expectations should result in the cessation of ritualistic behaviour. (Meyer, 1966, p. 275)

However, in several small studies in the 1960s, only approximately 30% of OCD patients achieved, at best, partial remission of symptoms, and they often relapsed once the external controls were removed (Meyer, 1966). However, any improvement was a great leap ahead from the foregone conclusion among therapists at the time that “the prognosis for this illness is worse than that of any other neurotic disorder” (Meyer, 1966, p. 273). By preventing the person with OCD’s desired response to obsessive intrusions of performing the compulsion, those obsessions gradually lose their power to control the person’s thoughts and disproves the compulsions’ seeming predictive effect of preventing harm. It would take another two decades for a more effective therapeutic strategy to gain widespread acceptance.

Exposure and Response Prevention Gets Results for OCD

Edna Foa

Further refinements to behavioral therapy were developed by Edna Foa (1937–present) that incorporated strategies for addressing unwanted cognitions that have been missing in a strictly behavioral approach. OCD is treated most effectively with a type of Cognitive Behavioral Therapy (CBT) approach known as Exposure and Response Prevention (ERP). It has two parts: repeated exposure to the obsessional topics patients have been attempting to avoid, which will habituate the patient to the obsession, and secondly, suppression of the compulsive action to decondition this learned response (Abramowitz, 2001; Benito & Walther, 2015; Doron, Moulding, Kyrios et al., 2009; Glombiewski et al., 2021). This two-step process was proven an efficacious approach by clergy and their scrupulous parishioners several centuries before it was rediscovered by modern psychology. Repackaged as a mental health treatment, this simple

cognitive behavioral approach became the first evidence-based therapy for OCD to gain widespread acceptance (Foa et al., 1984).

Numerous studies attest to the improvement of cognitive behavioral approaches to previous psychoanalytic and behavioral approaches. However, the efficacy of ERP and CBT is much reduced for scrupulosity sufferers compared to patients with other predominant obsessional themes. This can lead to treatment failures and also contribute to the severity of comorbid mental health disorders (Ferrão et al., 2006; D. Greenberg & Huppert, 2010; Huppert & Siev, 2010; Mataix-Cols et al., 2002; C. H. Miller & Hedges, 2008; Siev et al., 2011). Greater understanding of the treatment resistance that is commonly experienced in therapy by mental health providers could have a significant benefit for those patients. It also could contribute to reducing the overall severity of comorbid mental health disorders with which scrupulosity typically occurs, including Generalized Anxiety Disorder and Major Depressive Disorder (Ferrão et al., 2006).

After the low success of previous behavioral treatment, it was remarkable initially that with ERP more than two-thirds of patients showed over 50% reduction in symptoms (Foa, Kozak et al., 1995). However, Meyer's early behavioral therapy case studies illustrate the particular difficulty of applying behavioral therapy to scrupulosity patients. While Meyer's first patient with contamination obsessions and cleaning compulsions "displayed much less concern" with her previous obsessions after ERP, the patient with scrupulosity did not. She continued to have intrusive sexual "thoughts about the Holy Ghost, swear words and the performance of activities with "sexual connotations"" (Meyer, 1966, p. 279). Meyer noted that his patient had previously endured 10 years of psychoanalysis during which she had become quite familiar with the

unconscious sexual content of her obsessions and continued to “be surprised” by her intrusive thoughts. However, Meyer reports this as an improvement over her previous condition.

All the symptoms are enhanced when she is alone, and when feeling angry or resentful.

She also reports that the belief in, and fear of, the consequences of “sinful thoughts” and of non-performance of “acts of repentance” are present but their intensity remains reduced. (Meyer, 1966, p. 279)

While reduced intensity is a favorable outcome, it is unlikely that further gains will be consolidated.

One may assume that a completely successful modification of expectations would lead to a complete elimination of ritualistic behaviour. This may be extremely difficult to attain for cases whose expectations refer to a distant future, as in (the patient) who feared “eternal damnation,” since reality testing could not be effected. (Meyer, 1966, p. 280)

ERP remains the “gold standard” evidence-based therapy for OCD, as well as for scrupulosity. However, “not all patients achieve minimal symptoms at the end of treatment (e.g., 75–80% of patients respond, yet only 40–52% achieve remission)” (Wheaton et al., 2016, p. 6). In a recent article summarizing results of four randomized, controlled clinical trials of manualized ERP, treatment results followed three trajectories: 22.5% showed dramatic improvement, 52.1% showed moderate improvement, and 25.4% had little to no progress (H. Kim et al., 2023). Two factors were found to be predictive of the “little to no progress” group: greater avoidance behaviors at baseline and internalizing emotional symptoms, basically comorbid anxiety disorders and depressive symptoms (H. Kim et al., 2023). Avoidance behaviors have also been correlated to lack of follow-through with exposures assigned as homework between therapy sessions (Farris et al., 2013).

In the case of scrupulosity, such exposures are likely to be insufficient by the very nature of the existential content of the obsession. This further highlights the distinct gap between scrupulous obsessions and compulsions centered around religious or moral beliefs and other OCD content domains. At the present time, this gap is too little understood to address adequately. The lack of data prohibits significant modifications of existing evidence-based therapies to respond better to its needs. Further research on scrupulosity is, therefore, needed to understand how it differs from OCD. But it is also important to understand how scrupulosity and OCD are similar so that the existing body of knowledge can be applied where it fits scrupulosity and be applied effectively for alleviating symptoms.

CHAPTER III: OBSESSIVE–COMPULSIVE DISORDER

Any attempt to study scrupulosity is complicated by the little empirical data on how it differs from other presentations of OCD, despite the fact that it has long been historically recognized as an identifiably distinct disorder. However, identifying the scope of the problem of scrupulosity got no help from early studies of the overarching category of OCD which cited a rate of .05% in the general population (Boyd, 1984). In the 1950s and 1960s, “the impression that OCD was a relatively rare disorder arose from retrospective chart review studies” of psychiatric patients which identified “only a small minority” of 1%–4% with OCD (S. A. Rasmussen & Eisen, 1992, p. 744). Even then, it was widely recognized that this was a gross under-estimate of the true prevalence of OCD. “Experienced clinicians are well aware of the secretive nature of these patients as well as their reluctance to reveal their symptoms” (S. A. Rasmussen & Eisen, 1992, p. 744). Early studies may have grossly under-counted OCD cases partly due to little recognition of OCS within clinical populations for which multiple comorbidities and increased severity of trans-diagnostic symptoms are the norm (Foa, 2010). They did not know because they did not ask. Even today, expertise in identifying OCD among a constellation of severe psychiatric symptoms is hard to come by. OCD is reported to be one of the more tricky disorders to spot in clinical work, often mimics symptoms of other disorders, and clinicians feel less prepared to treat it when they begin their practice (Gellatly et al., 2017).

Prevalence

Data from larger epidemiologic studies from the 1970s through 1990s began to point to a much higher lifetime prevalence at 2.0–2.5%, while 6-month prevalence reaches 1.5–1.6% (Karno, 1988; S. A. Rasmussen & Eisen, 1992). “These rates are about 25 to 60 times greater than had been estimated on the basis of previous studies of clinical populations” (Karno,

1988, p.1). Estimates have continued to climb with recent large epidemiological population-based studies showing a lifetime incidence as high as 3.5% with a contemporaneous one-year prevalence of 5.1% for clinically significant OCD and 11.2% reporting sub-clinical symptoms (Angst et al., 2004; Fineberg et al., 2013). Contemporary consensus coalesces around 2.5% as a conservative estimate that is well validated in multiple studies (American Psychiatric Association, 2017, 2022).

“Epidemiological surveys have borne out clinical observations that OCD may be a particularly disabling medical disorder” (Ruscio et al., 2010, p. 53). Across all subject domains, OCD predicts greater lifetime impairment, marital maladjustment, and likelihood of any psychiatric comorbidity (Ruscio et al., 2010). In a large community survey across five regional U. S. sites including 18,500 community subjects, the National Institute of Mental Health’s (NIMH) Epidemiological Catchment Area (ECA) study of psychiatric morbidity, OCD prevalence and symptom presentation was “far more common than previously suspected” (Karno et al., 1988, p. 1094). Replication of survey results was conducted by the National Comorbidity Survey Replication (NCS-R), “the most recent large scale nationally representative epidemiological survey of the U. S. household population (Ruscio et al., p. 53). Fortunately, this study took an interest in assessing the content of OCD symptoms for analysis.

The NCS-R assessed lifetime experiences not only of OCD but also of nine types of obsessions and compulsions (O/C) that are commonly reported by those with the disorder. Information about severity, onset, and insight was collected to allow examination of putative OCD subtypes. (Ruscio et al., 2010, p. 53)

Of the 9,282 respondents to the NCS-R community survey, “fully 28.2% of respondents reported experiencing obsessions or compulsions (O/C) at some time in their lives” with

typically “just one of the nine O/C types ... most commonly checking (15.4%), hoarding (14.4%), or ordering (9.1%)” (Ruscio et al., 2010, p. 56). In the previous 12 months, prevalence in the total sample of “sexual/religious” OCD was 2.3% and, reported separately, “Moral” OCD was 4.2%, comprising a total of 6.5% for the content categories usually included within “forbidden/taboo thoughts” identified with scrupulosity in other studies (p. 56). For comparison, “Harming” (over-responsibility for causing harm) OCD was 1.7% (Ruscio et al., 2010, p. 56).

However, the lifetime prevalence of developing clinical OCD for those currently experiencing those symptoms is 29.6% for sexual/religious OCD, 23.9% for moral OCD (total of 53.5%), and 33.8% for harming, the top three categories of OCD content. Together, the scrupulosity-type obsessions and compulsions predict 87.3% of lifetime clinical OCD cases from among those who reported a lifetime history of OCD involving scrupulosity-related obsessions and compulsions (Ruscio et al., p. 56). Clearly, the prevalence of OCD of sexual/religious/moral character is outsize to its perceived impact.

One reason getting an accurate gauge is a problem without a simple solution is that measuring scrupulosity would require a clinical description of its symptoms that allowed a clear definition to be made and which would also differentiate when scrupulosity is not present in OCD. The effort to define the disorder has had a similar gradual progression as prevalence studies in that the morphological process often seems to ignore more inclusive historical data in favor of a medicalized approach to classification based on symptom counts and behaviors.

Further, diagnostic criteria for OCD have been continuously updated in each version of the DSM. A major change of classification was made to DSM-5 to reallocate OCD from among the anxiety disorders to its own category of Obsessive–compulsive and Related Disorders comprising OCD, Body Dysmorphic Disorder, Hoarding Disorder, Trichotillomania, Excoriation

(Skin-Picking) Disorder, along with several “other,” “unspecified,” “substance/medication induced,” and “due to another medical condition” variants of OCD (American Psychiatric Association, 2017, pp. 287–294).

On its face, the classification of these other disorders share a commonality of a physical urge to perform some compulsive behavior that is distinctly unlike the pathological doubt and overly sensitive conscience of a person with scrupulosity. This begs the question whether there is enough commonality of the obsessive symptoms to warrant these OCD-related disorders being lumped together under an umbrella with scrupulosity at all. To explicate a reasonable answer to this dilemma, a deep dive into the nature and features of OCD is helpful in order to better understand scrupulosity. Fortunately, a large body of research on OCD has explicated some details of its characteristics.

Clinical Definition of OCD in DSM-5-TR

Current diagnostic criteria for OCD proscribed in the DSM-5-TR include:

A. Presence of obsessions, compulsions, or both:

Obsessions are defined by (1) and (2):

1. Recurrent or persistent thoughts, urges, or images that are experienced, at some time during the disturbance, as intrusive and unwanted, and that in most individuals cause marked anxiety or distress.
2. The individual attempts to ignore or suppress such thoughts, urges, or images, or to neutralize them with some other thought or action (i.e., by performing a compulsion).

Compulsions are defined by (1) and (2):

1. Repetitive behaviors (e.g., hand washing, ordering, checking) or mental acts (e.g., praying, counting, repeating words silently) that the individual feels driven to perform in response to an obsession or according to rules that must be applied rigidly.
 2. The behaviors or mental acts are aimed at preventing or reducing anxiety or distress, or preventing some dreaded event or situation; however, these behaviors or mental acts are not connected in a realistic way with what they are designed to neutralize or prevent, or are clearly excessive.
- B. The obsessions or compulsions are time consuming (e.g., take more than 1 hour per day) or cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- C. The obsessive–compulsive symptoms are not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition.
- D. The disturbance is not better explained by the symptoms of another mental disorder.

(American Psychiatric Association, 2022)

Onset of Disease

Onset of OCD is heterogeneous among phenotypic presentations with severity of the course of illness highly correlated to age of onset (Fornaro et al., 2009). OCD seems to have a “bimodal” pattern of onset in which 21% of cases emerged in childhood at a mean age of 10 years old (Fornaro et al., 2009, p. 3). Taylor (2011) reported a distinct cohort of onset of OCD characterized by a mean age of 11 and accounting for 76% of all lifetime OCD cases. Karno et al. (1988) found mean age at onset was 20.9 to 25.4 across multiple sites surveyed, with a similar mean age for men (22.4 years old) and women (23.0). Angst et al. (2004) found a median age of 18 years with 70% occurring before 20 years old (p. 156). The remaining preponderance of adult

onset is typically between 22 and 35 years old, with few new cases after the early 30s (Ruscio et al., 2010, p. 56) and with a markedly decreased onset after age 50 (Fornaro et al., 2009, p. 3).

Fawcett et al. (2020) report “younger adults were 1.4 times more likely to be diagnosed with OCD in their lifetime than older adults” (p. 10). Early onset in childhood is associated with more severity of impairment and an intensifying course of disease (Fornaro et al., 2009). There is a greater incidence in males, greater comorbidity with tic disorder, and in first-degree relatives having a greater prevalence of OCD, and greater severity globally, as well as a higher prevalence of most types of OCS (Taylor, 2011).

Severity of OCD is evidenced by poorer insight, higher comorbidity, increased impairment, and a greater likelihood to seek treatment (Ruscio et al., 2010). “Some studies suggest that OCD patients with early onset of symptoms are more likely to develop certain comorbidities such as tic disorder and Tourette syndrome than patients where OCD emerges in adulthood” (Külz & Voderholzer, 2015, p. 13). Comorbid mental health diagnoses with OCD seem to be the norm rather than the exception.

OCD typically emerges against the backdrop of preexisting mental disorders. OCD begins at a later age than most (79.6%) comorbid anxiety disorders. Two exceptions are separation anxiety disorder, which tends to follow the onset of OCD (53.2%), and posttraumatic stress disorder, which often begins in the same year as OCD (20.7%) and which follows OCD (39.4%) just as often as preceding it (39.9%). The situation is different for mood disorders, where the proportion of comorbid cases where OCD begins before the mood disorder (45.6%) is very similar to the proportion where the mood disorder begins before OCD (40.2%). Most comorbid impulse-control (92.8%) and

substance use (58.9%) disorders, in comparison, begin at an earlier age than OCD.

(Ruscio et al., 2010, p. 57)

In a study of prevalence of all anxiety disorders globally, older adults were 20% less likely to report clinical anxiety. Similar results were replicated in the United States and may be generalizable to mental disorders, in general. “While physical health and cognitive function deteriorate at an accelerated rate across the adult lifespan, self-reported mental health measures suggest a linear increase or better mental health among older adults” (Fawcett et al., 2020, p. 10).

Joseph Ciarrocchi, a former Catholic priest with a doctorate in clinical psychology, identifies three types of scrupulosity distinguished by differences in onset variables and course of illness (Ciarrocchi, 1995). The first type is when scrupulosity is developed as a focus of obsessive concern arising due to the development of the disease. A common misconception is that highly religious people become obsessive, but studies show the opposite is true (Rakesh et al., 2021). Religiosity is a protective factor, rather than a risk factor (Cohen & Johnson, 2017). This misunderstanding may be rooted in confusion with OCPD focused on religious themes and observation of fastidious, perfectionistic religious practice that lacks the more extreme generalization into other areas of life.

The second type, developmental scrupulosity, typically occurs as a stage of spiritual development commonly occurring in adolescence when personal spirituality and morality is questioned and explored as adolescents individuate from their families (Ciarrocchi, 1995). Post-conversion scrupulosity is also a type of developmental scrupulosity seen among adults with a recent religious conversion or significant recommitment after a period of relative unimportance. They tend to try to amend or undo the effects of pre-conversion apostasy when they may have lived according to very different personal standards. Developmental scrupulosity

typically remits in severity over time, even without direct intervention. Spiritual questions may be resolved with further study and indoctrination into formal religion. This is the pattern followed by both Martin Luther and Saint Ignatius of Loyola.

The third type is milieu-influenced scrupulosity, another pattern that can be imparted through family or group modelling of overly rigid thoughts and behaviors typically experienced in an emotional climate of threat and control, with resulting fear and uncertainty. This type is seen often among American Catholics whose religious education occurred before the Second Vatican Council's sweeping changes resulted in a liberalization of church orthodoxy. Prior to that time, children were commonly exposed to teaching that emphasized strict adherence to rituals without understanding the language in which they were performed, and a characterization of God as rigid, quick to anger, and sometimes vengeful (Cobb, 2014). These teachings emphasized a fear of going to hell used as intimidation to ensure behavioral compliance.

In these conditions, it was not unusual for children to develop a God representation as a harsh authority figure with little warmth and no overt displays of love. Along with a biological predisposition for OCD and insecure attachment to parents with an authoritarian parenting style, these risk factors can influence some people to develop scrupulosity. Milieu scrupulosity typically resolves along with development of group identification as the person makes a personal decision whether or not to remain within the religious group. If they remain, they will solidify a religious identity and can either form a more adaptive belief structure by not conforming to scrupulous ideas and practices, or accept scrupulosity as a normative part of the religion. The other choice is to leave the religion and reject those strictures as in the stereotype of the "recovering Catholic" (Ciarrocchi, 1995).

Cobb (2014) reports her experience hearing people with clinical scrupulosity explain that their symptoms began under the strict auspices of Catholic school nuns. Cobb disputes this causality, but perhaps she underestimates the enduring influence of strict social control during her formative years.

It was not possible for these nuns to give them the type of scrupulosity that they have experienced their entire lives. While I do believe that in some way these nuns may have induced a type of milieu-influenced scruples, as the stereotype of pre-Vatican II nuns seems to portray, once the person has left Catholic school those types of scruples should disappear. ... Some other driving force took over and maintained their scrupulosity once they left Catholic school. (Cobb, 2014, p. 38)

While Ciarrocchi's categorizations and his advice for treating them differently seem to make intuitive sense, academic sources have not embraced for further study these constructs in the research literature. Whether Ciarrocchi's phenotypes of scrupulosity onset are truly disparate clinical presentations of OCD is unknown. The split between the knowledge bases of psychology and religion is apparently alive and well (Dein, 2018). Further study is needed to explicate this complex relationship.

Course of Illness

OCD may not impair daily functioning to an extent noticeable to others early in the course of the disease; from the ECA study, it takes 7.5 years on average between onset and first seeking professional help (Ruscio et al., 2010). Other sources have reported an average of 14–17 years before seeking treatment (International OCD Foundation, n.d.) However, more than half of those with lifetime OCD report experiencing symptoms in the preceding 12 months with an

average of 5.9 hours per day ruminating on obsessions and 4.6 hours per day performing compulsions (Ruscio et al., 2010, p. 57).

There is considerable variability in the course of illness, however. In the early stages of the disorder, intermittent episodes occur commonly with periods of remission, but for most people, OCD becomes chronic and unremitting over time (Fineberg et al., 2013). Remission rates are just 16% after one year, but reach 42% by 15 years (Marcks et al., 2011). The chance of relapse after five years of remission was approximately 25%, with being unmarried and comorbid depression increasing the risk of relapse. For early onset cases, remission rates are much more positive: in one study of clinical cases at a specialty pediatric clinic, 60% of patients had subclinical levels of symptoms at 9 years post-diagnosis (Micali et al., 2010).

Delay in Seeking Treatment

Previous community-wide epidemiological surveys have reported that only 35%–40% of people who met criteria for OCD had ever sought help from a mental health professional (Belloch et al., 2009; Goodwin et al., 2002). In a 1996 a community sample, that number fell to only 28% of people with OCD attempting to seek treatment, and less than half of those had accessed mental health care. Of those who did, most saw non-psychiatric physicians or clergy (Goodwin et al., 2002). Other research suggests people with OCD access more specialty medical care, such as cardiology and dermatology, but fewer are properly diagnosed or successful in resolving their issues (Goodwin et al., 2002). For the non-treatment-seekers, “about 40% of this population stated that a reason they had not sought treatment in the past was lack of knowledge of where to find help ... a stronger barrier than not having the funds to do so” (Goodwin et al., 2002, p. 148).

However, the largest barriers to seeking treatment were “fears of stigma and the meaning of the thought contents” (Belloch et al., 2009, p. 257). Eighty-five percent of people with OCD had attempted to control their OCD symptoms on their own and only realized they had a problem when they failed (77%). “The effort to keep the obsessions under control, and the failure to achieve this, has been consistently argued by the cognitive approaches to OCD as a main factor in explaining the genesis and the maintenance of the disorder” (Belloch et al., 2009, p. 262).

Fifty percent of people with OCD in the community sample reported that they delayed seeking treatment because they thought the problem would go away on its own (Belloch et al., 2009). Stigma around help-seeking was mainly due to fear of being considered mentally ill (30.8%) or a bad person (3.8%), or feeling ashamed (34.6%) or fearful (19.2%) of admitting the content of their obsessions, or that telling someone would make their thoughts come true (3.8%). Reasons for seeking help included interference with daily life (77%), symptoms became more disturbing (73.1), or increased in frequency (65.4%), and they felt sad (65.4%) or afraid of what was happening to them (57.7%; p. 261).

Typical OCD malfunctioning thought patterns accounted for a significant percentage of people deciding to find help, such as 57.7% reported they believed their thoughts would come true. They may have sought help due to feeling responsible for preventing that. Other patients retained fair insight and 46.2% realized they had a serious problem or illness (Belloch et al. 2009, p. 261). Some influence on the decision to seek help could be seeking reassurance to ensure that those fears would not actually happen. Belloch et al. (2009) note that these issues “mainly refer to the obsessions which include repugnant thoughts, images or impulses concerning sex, violence, aggression or blasphemy, usually without overt compulsions and/or rituals” (p. 258).

In a large multi-national community survey, a comparison of “onset and latency to treatment” (Benatti et al., 2016, p. 347) in patients with OCD, generalized anxiety disorder (GAD), and panic disorder (PD) found the mean duration of untreated illness was 54 months (GAD), 77 months (PD), and 91 months (OCD).

Significant differences ... were found with respect to age, age of first diagnosis, age of first treatment, family history of psychiatric illness, onset-related stressful events, benzodiazepine prescription as first treatment, antidepressant prescription as first treatment, and help-seeking (self-initiated vs. initiated by others). (Benatti, 2016, p. 347)

These researchers found “patients with OCD tend to be pushed to seek help by others, and may be more frequently referred to a psychiatrist as the first therapist, perhaps reflecting the secretive and burdensome nature of the condition” (Benatti et al., 2016, p. 351).

In a Japanese study of outpatients initially accessing treatment in an OCD specialty clinic, the average delay before seeking treatment had been seven years (Okamura et al., 2022). This may be partly due to the slow escalation of severity that gradually becomes unbearable, as well as the largely invisible nature of obsessional thought. When patients’ symptoms become so impairing and time-consuming that they cannot maintain daily routines, then it is hard to hide any longer they decide to seek help (Goodwin et al., 2002).

Belloch et al. (2009) found “help-seeking influencing variables may vary across different OCD subtypes (harming, checking, aggression, and blasphemy...). For example, the aggression and blasphemy obsessions received the most negative evaluations followed by the washing compulsions and then by checking” (Belloch et al., 2009, p. 258). Little data exists about different reasons for delaying or seeking treatment, or a comparison of delay of onset/treatment for the different types of obsessions. “Although the aggressive/blasphemous contents and

washing were the worst rated, and recognized as the most problematic mental problems, it may be harder to disclose and seek help” (Belloch et al., 2009, p. 258). Further research would be helpful in revealing whether there are other potentially modifiable barriers leading to delays in help-seeking that are more prevalent for people with untreated scrupulosity (Belloch et al., 2009).

Presentation and Prevalence by Gender

Historically, early studies noted there is no marked difference of a sex or gender difference in epidemiological prevalence across multiple studies of clinical populations (Fornaro et al., 2009). In epidemiological studies of community samples including subclinical OCS as well as OCD, there was a slight preponderance of female (52.9%) to male subjects (Karno et al., 1988). However, a recent meta-analysis of community samples in 34 studies concluded, “Women were 1.6 times more likely to experience OCD compared to men, with lifetime prevalence rates of 1.5% in women and 1.0% in men” (Fawcett et al., 2020). It is curious that Fawcett et al. report a much lower lifetime OCD incidence than the widely reported 2.5% (de Mathis et al., 2006; C. H. Miller & Hedges, 2008; Robins et al., 1984), indicating more research is needed. While gender representation is still to be more fully studied, there is a distinct difference in pattern of onset by sex.

Males make up the majority of very early onset cases, with nearly one quarter of males having onsets before age 10. In contrast, females have a much more rapid accumulation of new cases after age 10, with the highest slope during adolescence. (Ruscio et al., 2010, p. 56)

Fawcett et al. (2020) hypothesized hormonal influences may be a root cause of female OCS onset.

With respect to why women might be at greater risk of OCD compared to men. Such an account is supported—for example—by the existence of clear gender differences in pediatric samples (with boys at greater risk) that dissipate with the onset of puberty. It has therefore been postulated that reproductive hormones and associated major reproductive events such as menarche, pregnancy, postpartum, and menopause may play a role in the onset or exacerbation of OCD symptoms. Supporting this idea, over 25% of women with OCD report the onset of their diagnosis being related to a major reproductive event.

While menarche has been the most commonly implicated event, the perinatal period has also been linked to symptom onset. Further, whereas some women show no change or even improvement in preexisting symptoms across reproductive events, approximately 30%–50% of premenstrual, pregnant, postpartum, or menopausal women have been found to experience exacerbated symptoms, possibly resulting from susceptibility to fluctuations in reproductive hormones. (Fawcett et al., 2020, pp. 9–10)

OCD symptom prevalence varies by gender, as well (Fawcett et al., 2020). Women are known to present greater contamination and cleaning symptoms compared to men and to demonstrate greater eating disorder and impulse control comorbidity. Male patients are in turn more likely to have an earlier age at onset and chronic course, single status, greater tic and substance use disorder comorbidity, and more sexual-religious and aggressive symptoms. Explanations pertaining to these differences in presentation might broadly be categorized as arising from biological, psychological, or sociocultural causes (Fawcett et al., 2020, p. 10).

Forbidden thoughts such as experienced with scrupulosity may carry such social stigma that true prevalence is unknown due to denial and under-reporting (Fawcett et al., 2020).

Societal influences may also affect the reporting of OCD symptoms in men. With sexual, religious, and aggressive symptoms more common in men, prevalence may be underestimated due to stigma or shame, potentially delaying diagnosis or treatment seeking. (Fawcett et al., 2020, p. 10)

Gender differences in obsessional content is an area for future study that would be particularly helpful in evaluating patterns of thought when clinical interviewing of patients, as well as knowledge to convey to help normalize patients' experience. It is important to familiarize therapists to know what to ask due to the wide variety of disturbing content they might not have ever thought of themselves, or are unknowledgeable about religious beliefs, especially for taboo thoughts that people are reluctant to admit and which may cause them to avoid or delay seeking treatment (Belloch et al., 2009; Goodwin et al., 2002).

Medical Conditions Associated with OCD

In the only epidemiological study of OCD and comorbid medical conditions, OCD “was associated with significantly higher odds of having chronic pain, respiratory conditions, and ulcers” (Subramaniam et al., 2012, p. 2042). The authors noted they could not determine an explanation and the issue warrants further study considering these conditions and OCD are associated with chronic stress. “OCD preceded the onset of comorbid disorders suggesting that depression or anxiety may be triggered by the enhanced distress caused by OCD” (p. 2042).

A clear biomedical etiology for OCD in the medical literature is seen by the many different neurologic illnesses with which patients develop obsessive–compulsive symptoms, though it can also occur without any detectable physical cause (Arnold et al., 2004). Patients with previously diagnosed neurological diseases such as Parkinson’s disease, multiple sclerosis,

and, especially, Tourette's syndrome, report higher incidence of OCD (M. S. George et al., 1992). Other specific damage to focal areas of the brain can cause sudden onset of OCS.

Mass lesions or infarcts, particularly in the striatum or frontal or temporal lobes can cause OC symptomatology. There is an increased rate of obsessive-compulsive disorder in patients who have had closed head injury. Some infections (Sydenham's chorea, Von Economo's encephalitis, a wasp sting) cause secondary brain damage, particularly in the basal ganglia, which later results in obsessive-compulsive disorder. (M. S. George et al., 1992)

Additionally, sudden onset of OCD symptoms in children may be caused by an autoimmune response of inflammation in the basal ganglia following a Group A streptococcal infection, a syndrome is known as PANDAS or PANS for Pediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcal Infection or Pediatric Acute-Onset Neuropsychiatric Syndrome (Xu et al., 2021). The course of this disease is unlike OCD in that symptoms may abruptly or gradually remit with recovery from infection. It also affects executive function skills, cognitive processing speed, mood dysregulation, and rarely, acute onset of psychosis or mania (Colvin et al., 2021). In adults, sudden onset of OCD symptoms can be elicited by neurodegenerative diseases of the Basal Ganglia such as Huntington's Disease and Wilson's Disease (Külz & Voderholzer, 2015).

Neurobiology of OCD

The emergence of OCD symptoms along with these diverse clinical syndromes points to a common cortico-striatal-thalamic circuit disruption of function as a cause for both PANDAS/PANS and non-streptococcal infection OCD (Colvin et al., 2021). Dysfunction of the brain's cortico-striatal-thalamic neural circuits has long been noted in neuroimaging of patients

with OCD (Purty et al., 2019), as have “infections directly or indirectly involving the basal ganglia” and “decreased caudate nuclei volume and hyperactivity of caudal-frontal regions” (M. S. George et al., 1992, p. 7). However, a comprehensive neurobiological model for OCD that accounts for the varied medical conditions that also effect a range of brain structures has been elusive (Arnold et al., 2004; Purty et al., 2019). No studies of scrupulosity have focused on the neurobiological correlates of the disease. Likewise, no neurobiologically focused studies have reported on differences with symptoms of religious or moral OCD as in scrupulosity.

Heritability and Genetic Vulnerability

There is a wide range of evidence of a genetic contribution to the etiology of OCD ranging from family and twin studies to genomic studies aimed at finding the shared genes related to various features and progression of the disease (Arnold et al., 2004; M. S. George et al., 1992; Grabe et al., 2006; Purty et al., 2019).

Families of patients with obsessive–compulsive symptoms were first noted by Janet as more likely to have “psychasthenic” qualities, as well (Pitman, 1987). “The concept of OCD as a familial-based disorder is broadly accepted and strongly supported by empirical research” (Rector et al., 2009). Heritability estimates for both sexes range from 26% to 47% (Hanna et al., 2005). No significant differences by sex were found in the familial pattern or heritability estimates in multiple studies .

Family members of patients with obsessive–compulsive disorder have a higher prevalence of the disorder and of anxiety and affective disorders. Twenty percent of the members of the nuclear family have overt obsessive–compulsive disorder, and another 15 percent have a subclinical form of the disorder. Phenomenologic subtypes do not run true

in families; a parent who checks compulsively may have a child who washes compulsively. (Jenike, 1989, p. 539)

In a large, population-level study in Europe, researchers found evidence of family clusters of obsessive–compulsive disorder related to both genetic and non-shared environmental influences (Mataix-Cols et al., 2013). In replicated studies, it was found that first-degree relatives of OCD patients have a 6.2 times greater risk of OCD than unrelated controls and a 2.2 fold higher risk of subclinical obsessive–compulsive symptoms. “The risk for OCD among relatives of OCD probands increased proportionally to the degree of genetic relatedness” and “relatives at similar genetic distances had similar risks for OCD, despite different degrees of shared environment” (Mataix-Cols et al., 2013, p. 709).

First-degree relatives also exhibit increased levels of neuroticism, including self-consciousness, anxiety, and vulnerability to stress. They also have twice the prevalence of obsessive–compulsive personality disorder (21%) than control relatives (5.8%), though there was no discrepancy for other personality disorders (Samuels et al., 2000).

Family studies have illuminated that spouses or partners with at least one child together also share an elevated risk of developing OCD. This result hints at a “possible assortative mating” because “individuals with OCD or subclinical obsessive–compulsive symptoms may seek partners with similar characteristics” (Mataix-Cols et al., 2013, p. 709-710).

Another possibility for this concordance may be family accommodations to the OCD behaviors of the affected family member. Unaffected spouses may adopt OCD behaviors that are modelled for them. “With time, the originally unaffected spouse may eventually manifest as having “pseudo-OCD”” (Mataix-Cols et al., 2013, p. 710). The small but significant findings of OCD in unrelated family members (0.1–0.2) hint at social adaptation and relational transference

of OCD through social learning. Familial and other non-genetic transmission of OCD symptoms is also likely, as evidenced by the less than total agreement in clinical presentation of patients who have no genotypic differences (Mataix-Cols et al., 2013).

It is also evident that environmental/cultural factors influence OC behaviors and are also transmitted within families. These nongenetic factors unquestionably influence the manifestation of OC behaviors as evidenced from twin studies that consistently demonstrate that the concordance rate of MZ (monozygotic) twins for OC behaviors and OCD is always less than 1.0. (Pauls, 2010, p. 151).

Future research should address the impact of these environmental and/or cultural risk factors to better understand and be able to predict, and possibly even prevent, the development of OCD among those who share them (Pauls, 2010).

Genetic Concordance in Twin Studies

Twin studies have repeatedly shown a greater degree of concordance for monozygotic twins than for dizygotic twins who only share 50% of their genome (Rector et al., 2009). “The difference in concordance rates between monozygotic and dizygotic twins can be used to estimate the percentage of the phenotypic variance observed for a specific trait that can be accounted for by genetic factors” (Pauls, 2010, p. 149). In a meta-review of 70 years of twin studies, monozygotic twins were found to share sub-clinical obsessive features or obsessive-compulsive symptoms 87% of the time compared to 47% for dizygotic twins (Purty et al., 2019; Van Grootheest et al., 2005). In recent large twin studies, adult-onset OCD heritability was estimated to be 27%–47% (Van Grootheest et al., 2005) while child-onset OCD was significantly higher at 45%–65% (Hudziak et al., 2004); the remaining variance in child-onset OCD was attributed to non-shared environmental factors (Hudziak et al., 2004). “Subsequent

twin studies have supported this conclusion, and also found shared genetic overlap between OCD and other disorders, including tic disorders, anxiety disorders, and attention-deficit hyperactivity disorder” (Purty et al., 2019, p. S38).

Genetic Research

Research on mental disorders have used genetic linkage studies, candidate gene association studies, and genome-wide association studies to look for genetic bases for OCD. Genetic linkage studies have focused largely on phenotypic presentations of symptoms arising from clinical observation and has been critiqued for lack of specificity to distinct disorders (Arnold et al., 2004). “Candidate gene association studies review variations in genes believed to be associated with the physiological and functional aspects of the disease compared with variation in clinical symptoms” (Pauls, 2010, p. 149). Affective disorders commonly share some symptoms and may represent a shared genetic source with different phenotypic presentations due to non-genetic factors (Arnold et al., 2004). “Most investigators have focused their efforts on narrower definitions in an effort to reduce the impact of genetic heterogeneity, whereby multiple genetic and nongenetic factors may result in the same expressed trait” (Arnold et al., 2004, p. 243).

Among the range of anxiety disorders, OCD presents unique advantages for narrowing genetic targets due to the known involvement of the serotonergic and glutamatergic pathways as evidenced by the clinical discovery of the success of selective serotonin reuptake inhibitors in controlling OCD symptoms (Purty et al., 2019). “Most molecular genetic studies of OCD have focused on the monoamine pathway genes” (Hudziak et al., 2004, p. 609).

While some studies have shown OCD phenotype concordance with the COMT(catechol O-methyltransferase), 5HT2B (serotonin 2 receptor 2B), 5HT2A (serotonin 2A receptor), the

5HTTLPR promoter region of SLC6A4 (serotonin transporter protein), DRD4 (dopamine receptor), and SLC1A1 (glutamate transporter protein) genes (Hudziak et al., 2004; Purty et al., 2019), others have not. “Unfortunately, none have achieved genome-wide significance, and, with the exception of the glutamate transporter gene, none have been replicated” (Pauls, 2010, p. 149). Due to small sample sizes and the necessity of targeting specific symptoms, multiple study authors commented that study design limitations restricted the generalizability of the molecular genetic study results (Hudziak et al., 2004).

Genome-wide association studies take an opposite approach to specificity and cast a wide net for genetic concordance across a variety of genes in the genetic code. This involves scanning millions of single-nucleotide polymorphisms across multiple genomes to locate common genetic variants shared by affected people, and in comparison with their affected and unaffected parents (Purty et al., 2019).

Molecular genetic search strategies are based on the complementary methods of linkage and association. Linkage studies involve genotyping anonymous DNA markers across the genome in large pedigrees or affected relative pairs to determine the approximate chromosomal location of susceptibility genes. This approach does not require a priori prediction of the gene locus, but has relatively low power to detect genes of small effect (Arnold, 2004, pp. 243–244).

Complex disorders such as OCD likely involve multiple genes, each contributing a small additive risk to developing the disorder (Purty et al., 2019). Overall, genetic-only etiology of OCD is unlikely to be proven. “Evidence from epidemiological and molecular genetic studies strongly suggests a complex genetic etiology for OCD. To date ... no established variant has been identified for OCD” (Hudziak et al., 2004, p.). Like other neuropsychiatric conditions,

diseases, OCD is “etiologically heterogeneous” (Pauls, 2010, p. 159) with a variety of genetic, environmental, and sociological risk factors affecting epigenetic gene expression and disease morbidity (Hudziak et al., 2004; Mataix-Cols et al., 2013).

No genetic studies have reported data specifying differences correlated to developing scrupulosity as differentiated from results correlated to OCD. However, in a large study of 485 OCD patients, a first-ever factor analysis of individual OCD symptoms derived a clear structural model of five clusters of OCD symptoms. The “Taboo Thoughts” cluster reported a “robustly familial” sibling concordance of .2, which was higher than all the other clusters except Hoarding (also .2 concordance; Pinto et al., 2006, p. 83). This cluster encompassed symptoms of aggressive, sexual, and religious obsessions. While the study is important for its strong suggestion of a distinct scrupulosity subtype factored from self-reported OCD symptoms, it also represents clear evidence of genetic and/or shared environmental influence that should be further studied for its clinical significance.

Comorbidity Prevalence and Severity

Due to few research studies of any type focusing specifically on scrupulosity, broader studies of OCD must be referenced for understanding its pattern of comorbidities. OCD comorbidities vary with content of obsessions and phenotypic dimensions. Factor analysis of clinical presentation of commonly comorbid conditions with OCD is a promising approach to identify phenotypic subtypes (LaSalle et al., 2004; Nestadt et al., 2010). In Hasler et al.’s (2005) large study focused on categorization of OCD phenotypic traits, cluster analysis revealed that the closely correlated cluster of “aggressive, sexual, religious and somatic obsessions, and checking compulsions” (p. 125) loaded more than other symptom clusters with comorbid depressive disorders (major depression and dysthymia) and anxiety disorders (generalized anxiety disorder,

panic disorder, agoraphobia, social anxiety, and specific phobias), body dysmorphic disorder, and alcohol/substance use disorders. This cluster also was closely correlated to onset before age 16 and male sex, along with the cluster of “obsessions of symmetry, and repeating, counting and ordering/arranging compulsions” (Hasler et al., 2005, pp. 125–126).

OCD has high rates of lifetime comorbidity ranging from 60–90% across a range of other psychological disorders and tends to increase the severity of each comorbidity (Bolhuis et al., 2014; Torres et al., 2016). As measured in a population of over 1,000 clinical cases, the most commonly occurring comorbid conditions with OCD are “major depression (56.4%), social phobia (34.6%), generalized anxiety disorder (34.3%), and specific phobia (31.4%)” (Torres et al., 2016, p. 508). OCD also frequently co-occurs with anxiety, mood, impulse-control, and substance use disorders (Bolhuis et al., 2014).

Age of OCD onset is associated with differences in comorbidity patterns of OCD. Early onset before 10 years old is more likely to have comorbid tic disorders, trichotillomania, and body dysmorphic disorder (de Mathis et al., 2013; Janowitz et al., 2009). With such developmental differences apparent in varied symptom presentations, it is likely that OCD “does not behave as a unitary disorder, but rather as a constellation of symptoms or dimensions that intersect with additional psychopathology increasing the vulnerability for subsequent disorders” (Torres et al., 2016, p. 514).

“Axis II” Personality Disorders Comorbid with OCD

Comorbidities are the norm rather than the exception among people with OCD. “Most individuals with obsessive–compulsive disorder (OCD) have comorbid personality disorders (PDs), particularly from the anxious cluster” (Torres et al., 2006, p. 862). A community study of patients screened positive for any personality disorder in a “representative sample of adults with

OCD living in private households in the UK” found that 74% of people with OCD had at least one personality disorder (Torres et al., 2006, p. 862). Counter to stereotypes about women and PDs, “men with OCD were more likely to screen positively for PDs in general, cluster ‘A’ PDs, antisocial, obsessive–compulsive and narcissistic categories” (Torres et al., 2006, p. 862).

The most common screen positive categories were paranoid, obsessive–compulsive, avoidant, schizoid and schizotypal. Compared to participants with other neuroses, OCD cases were more likely to screen positively for paranoid, avoidant, schizotypal, dependent and narcissistic PDs. (Torres et al., 2006, p. 862)

Some positive news is appreciated amidst the overall negative prognosis for comorbidities with OCD. In a clinical study of 55 OCD patients undergoing CBT, 61% responded with at least a 35% decrease in OCD symptom severity (Fricke et al., 2006). Thirty percent of the patients’ symptoms worsened during treatment. Another 17% responded by the time of follow-up, representing a delayed yet positive treatment response. These results were attained without a longer duration of treatment. However, schizotypal and passive-aggressive personality traits were determinants at baseline for eventual treatment failure (Fricke et al., 2006, p. 319).

Due to the greater correspondence between scrupulosity and OCPD, avoidant PD and schizotypal PD, those will be the focus for the present study. “Both disorders are associated with interpersonal problems” (Eikenæs et al., 2016, p. 245). Comorbid PD-OCD definitely presents more challenges for clinicians, but the outlook is promising for recovery with appropriate tailoring of therapy to individual clinical presentation (Fricke et al., 2006).

Results are encouraging for therapists working with patients co-diagnosed with Axis II disorders since these patients are not necessarily non-responders. The results stress the

importance of a specifically tailored treatment approach based on an individual case formulation in OCD patients with complex symptomatology and comorbid Axis II disorders. (Fricke et al., 2006, p. 319)

Comorbid personality disorders are a rich area for further study as they complicate treatment and relate to the clinical features of scrupulosity in many ways that are hitherto unexplored. How scrupulosity varies from other types of OCD in prevalence of comorbid personality disorders is not known at this time.

Obsessive Compulsive Personality Disorder

Obsessive Compulsive Personality Disorder (OCPD) is commonly comorbid with OCD with numerous studies of clinical populations estimating 23%–32% of patients with OCD having clinically significant symptoms of the personality disorder (Albert et al., 2004; Pinto et al., 2006; Samuels et al., 2000). Community samples report a prevalence of comorbid OCD/OCPD at 0.9 to 2.0% (Samuels et al., 2000; Torgersen et al., 2001).

It is not known what is the comorbidity prevalence of OCPD and scrupulosity, or for that matter, the relationship of any of the other personality disorders and scrupulosity. Though it has not been reported on in the literature, it may be highly relevant for further study considering that OCPD and scrupulosity sometimes share an ego-syntonic trait that reinforces a positive self image when high standards of religiosity are kept.

Freud first described clinically the “anal character” who exhibited “obstinacy, orderliness, and parsimony” (Coles et al., 2008, p. 289). Both Freud’s and Janet’s conceptualization of obsessive–compulsive symptoms influenced the use of the term “Obsessive–Compulsive Neurosis” for both OCD and OCPD (Angyal, 1965). More up-to-date conceptualizations of these disorders separate the disorders partly along the lines of Freud’s

fastidious anal character and the increasing severity and decreasing insight of Janet's psychasthenia (Yossifova & Loewenthal, 1999). However, significant overlap in the cognitive features of both disorders is evident particularly in the case of the strong desire for one's rigid beliefs to be borne out through action satisfied by performance of ritual or compulsion.

Obsessional or anankastic personalities are described ... as rigid and inflexible, loving order and discipline because they cannot bear to live outside a known framework. They are indecisive, highly moral and inclined to parsimony punctuated by episodic excessive generosity. (Holden, 1990, p. 2)

While obsessive-compulsive phenomena are dimensional rather than categorical in nature, there is one key difference separating the less severe presentation of OCPD from the higher levels of impairment commonly seen in OCD. Obsessions in OCPD are ego-syntonic and serve to bolster self esteem and reinforce narcissistic traits by reassuring the person that their thoughts and actions are in alignment with their values. People with OCPD tend to display increased neuroticism, be resistant to change, and be less willing to accommodate others' preferences. Self-schemas in people with OCPD tend to be rigid, intolerant of adaptation to circumstances, and stable over the lifetime (Coles et al., 2008).

People with OCPD are typically known to others for their perfectionistic ways and high personal standards. However, the underlying motivation may be less a desire for excellence than a feeling of incompleteness unless and until they perform tasks to their preferences (Holden, 1990, p. 2). This inner sense of "never good enough" can present as an ego-syntonic drive to perform to one's high standards despite never reaching such lofty heights.

Comorbid OCPD-OCD presents with a much more complex interaction of symptoms displayed in various situations. A study of 146 OCD outpatients found that OCD-OCPD

patients had earlier onset, more symmetry obsessions, hoarding obsessions and compulsions, and ordering, repeating, and cleaning compulsions, more comorbidities, including anxiety disorders and avoidant personality disorder, and more impairments in functioning. (Garyfallos et al., 2010, pp. 158–159)

However, another large study of 403 OCD patients both with and without OCPD were compared via demographic, clinical presentation, and genetic factors to determine if it represents a distinct subtype of OCD. The results of this study were unequivocal. “The majority of our findings suggest that in OCD, patients with OCPD do not have a highly distinctive phenomenological or genetic profile, but rather that OCPD represents a marker of severity” (Lochner et al., 2011, p. 1087). However, other studies have disagreed and found an interesting clinical profile that seems quite distinct from other combinations (Garyfallos et al., 2010; Mataix-Cols et al., 2000). In these analyses, OCPD was strong related to hoarding behaviors, but also to comorbid avoidant personality disorder (Garyfallos et al., 2010; Mataix-Cols et al., 2000).

Avoidant Personality Disorder

The next highest prevalence of a personality disorder comorbid with OCD is Avoidant Personality Disorder (AVPD) in 15% of patients (Samuels et al., 2000). This indicates a tendency to separate oneself from others’ influence for a variety of reasons related to self-preference (Baer, 1994). “AVPD is associated with more attachment anxiety than social anxiety disorder. Fear of abandonment may play a significant role in the AVPD pathology” (Eikenæs et al., 2016, p. 245). Both attachment anxiety subfactors “anxiety for abandonment” and “separation frustration” were higher for AVPD than for social anxiety disorder. However, it was not significant for levels of avoidance.

AVPD-OCD comorbidity has been little studied. In The Johns Hopkins OCD Family Study, a case-control study of 80 OCD patients and 343 of their first-degree relatives found AVPD comorbid with OCD in 15.3% of cases versus 1.4% of controls (Samuels et al., 2000, p. 457).

There is no rule that against multiple diagnoses of personality disorders, and it is curious that among people with OCD, a common presentation is comorbidity with both OCPD and AVPD found in 31% of OCD patients in a medium size outpatient OCD population (Garyfallos et al., 2010). The commonness of this specific comorbidity profile begs the question, could it be a distinct subphenotype of OCD? This group curiously also reports much higher rates of hoarding behaviors (40%) than OCD alone at 13% (Garyfallos et al., 2010). Other studies have reported similar findings.

Schizotypal Personality Disorder

In the more severely affected range, an early study of clinical OCD patients found about one-third met criteria for schizotypal or schizoid personality disorders. These patients often present with increased paranoid ideation and fare very poorly in treatment (Jenike et al., 1986; Minichiello & Jenike, 1987). Comorbid schizophrenia spectrum traits can be quite dramatic or nearly obscured by the more flagrant obsessional drive. This can lead to missing subtle traits when ruling out comorbid schizotypal PD (A. R. Rasmussen et al., 2020). With highly impaired OCD patients, schizotypal traits may further be overlooked due to confusion as to the overlap and diagnostic edges of obsessions and delusions. In schizotypal PD, the bizarre quality of mentation is not limited to specific obsessions but a generality of thought processes.

These patients present disturbances of language and thought, expression, interpersonal relations and experiences such as perceptual aberrations, depersonalization and transient

psychotic phenomena, which are similar to schizophrenia but not reaching a psychotic threshold. (A. R. Rasmussen et al., 2020, p. 994)

In one study of outpatients at an OCD specialty clinic, 35% had comorbid schizotypal PD and only 10% of those made improvements with therapy (Minichiello & Jenike, 1987).

“Impairment of learning also appears to be at the root of the failure of schizotypal patients to respond to behavioral treatment of OCD. Our clinical impression is that schizotypal patients suffer from an inability to focus on a task” (Minichiello & Jenike, 1987, p. 3).

During the course of treating numerous OCD patients in our clinic, we became convinced that there was a subgroup... that did not respond to in vivo exposure plus response prevention, despite careful application of...the previously validated behavioral techniques of in vivo exposure plus response prevention. (Minichiello & Jenike, 1987, p. 1, 3)

Perhaps this mental preoccupation makes sense when the findings of a survey of 932 college students assessed “obsessional intrusions, schizotypal personality features, depressive symptoms, general anxiety and OCD symptoms” (H.-J. Lee & Telch, 2005, p. 793). The survey revealed that autogenous obsessions that arise spontaneously from one’s mental processes are “more strongly associated with cognitive features (e.g., anomalous perception, obsessing), whereas reactive obsessions are more strongly associated with overt behavioral features (e.g., checking, washing, ordering)” (H.-J. Lee & Telch, 2005, p. 793). This finding is consistent with schizotypal personality disorder as typified by unusual, even bizarre, spontaneous cognitions. Comorbid schizotypal PD-OCD must represent a double whammy of bizarre obsessional intrusions. H.-J. Lee and Telch (2005) also found that covert OCD symptoms were strongly associated with autogenous versus reactive obsessions, which were more strongly correlated to

overt OCD symptoms, giving further evidence of the link between OCD and schizotypal (H.-J. Lee & Telch, 2005).

In another large community survey of symptoms of inferential confusion, absorption, and schizotypal personality traits, the cognitive biases of inferential confusion and attentional absorption predicted OC symptoms most commonly (Aardema & Wu, 2011). “Inferential confusion includes inverse inference—the tendency to negate reality in favour of a hypothetical possibility despite proof to the contrary” (Aardema et al., 2006, p. 1). Aardema and Wu (2011) inferred that “an overreliance on imagination during reasoning gives rise to experiences that are inconsistent with reality” (p. 74). People with OCD score significantly higher inferential confusion as well (Aardema et al., 2006).

Anxiety Disorders

In DSM-5 (American Psychiatric Association, 2017), OCD was reclassified from the family of anxiety disorders to its own category of obsessive–compulsive disorders. Scrupulosity shares with OCD such heightened affective traits as increased anxiety and a propensity for depression (C. H. Miller & Hedges, 2008; Rachman, 1997). “Severe anxious symptoms may occur in OCD patients presenting with excessive fear of losing control over one’s own “forbidden” yet unwanted sexual or aggressive impulses” (Torres et al., 2016, p. 513).

Generalized Anxiety Disorder

“OCD comorbidities were found to be prevalent and disabling among GAD and Social Anxiety Disorder patients, with higher subthreshold than threshold rates, and a negative impact on quality of life” (Camuri et al., 2014, p. 248). GAD is highly comorbid with OCD, showing clinical levels in 17.5% of a clinical OCD population and 8.8% with sub-clinical symptoms (Camuri et al., 2014). “Present findings stress the importance of a dimensional approach to

anxiety disorders, the presence of threshold and subthreshold comorbidity being the rule rather than the exception” (Camuri et al., 2014, p. 248).

GAD is the comorbidity that is superficially the most like OCD, and with the commonality of both disorders being on the anxiety spectrum before DSM-5, it was assumed GAD and OCD were more closely related than other anxiety disorders. However, recent studies have shown similar or higher prevalence for both Separation Anxiety Disorder and Social Anxiety Disorder (Boger et al., 2020; Bucci et al., 2012; Fehm et al., 2008; Franz et al., 2015).

This may make sense when you consider that both of the other disorders relate to the anxiety experienced due to interpersonal relations. Separation Anxiety Disorder focuses on anxiety when distance is created within the relationship by physical or emotional distance while Social Anxiety Disorder is approach-oriented with difficulty maintaining physical proximity and/or emotional intimacy (Benatti et al., 2021; Camuri et al., 2014; Fehm et al., 2008). They share a commonality around interaction with other people that is influenced by attachment security with a dysfunction of an interpersonal focus which then externalizes symptoms, versus garden-variety anxiety which is an internalizing disorder and not as directly influenced by interpersonal factors.

Both Social and Separation Anxiety Disorders have been highly correlated to OCD through the insecure attachment styles. This points to not anxiety as a common substrate, but difficulties with interpersonal relations. Nevertheless, both types of specific anxiety disorders do tend to magnify the effect of ordinary anxiety and GAD is commonly comorbid with OCD, as well, likely as a secondary effect rather than a primary cause as in the interpersonally focused anxiety disorders..

Separation Anxiety Disorder

Separation Anxiety Disorder (SAD) is “characterised by developmentally inappropriate and excessive worries about separation from home or attachment figures, the onset typically occurring before 18 years of age. As onset of SAD predates the onset of other anxiety disorders, it is considered the primary disorder (Bögels et al., 2013).

Among all anxiety disorders, Separation Anxiety Disorder is the third most prevalent of comorbid conditions with OCD at 27.2% lifetime prevalence, and 4.4% during the time of a large cross-sectional study of SAD and OCD (Franz et al., 2015). “The National Comorbidity Study Replication found the prevalence of childhood SAD (CSAD) to be 4.1%” (Mroczkowski et al., 2011, p. 257). SAD typically has an “onset earlier than OCD, which may influence the clinical course of OCD” (Mroczkowski et al., 2011, p. 257).

Although SAD is considered a childhood disorder in the current *Diagnostic and Statistical Manual of Mental Disorders*, “the symptoms can persist into adulthood” (Franz et al., 2015, p. 145). Adult SAD (ASAD) also has been identified as a distinct phenotype of SAD with 5.3% of community cases onsetting in adulthood (Shear et al., 2006).

SAD in childhood (CSAD) is an independent predictor of OCD with primarily “taboo thoughts” of an aggressive, sexual, and religious nature (Torres et al., 2016). “Among OCD patients with SAD, age of onset is earlier, symptoms are more severe, the frequency of the DY-BOCS sexual/religious dimension is higher and the incidence of other anxiety disorders, especially PD, agoraphobia and social phobia, is higher” (Franz et al., 2015, p. 146).

With a lifetime prevalence of 6.6%, adult social anxiety disorder (ASAD) has recently garnered much attention as a little understood phenomenon (Bucci et al., 2012). It is a complex disorder with many tendrils reaching out to other psychopathologies. ASAD can develop as a

primary condition in adulthood, or as an outgrowth of childhood SAD. “Males are more likely to report first onset in adulthood” (Bögels et al., 2013, p. 664). Comorbid mood or anxiety disorders have been found in 20–40% of ASAD patients (Diamond & Keefe, 2024). ASAD is associated with elevated impairment of social functioning across multiple domains (Bucci et al., 2012). “Patients with ASAD showed: higher frequency of alexithymia and higher scores on the “difficulty identifying feelings”; worse social functioning; greater behavioral inhibition during childhood; worse reaction to loss events; higher scores on insecure attachment styles” (Bucci et al., 2012, p. 1). Independent predictors of the intensity of ASAD symptoms were difficulties in identifying feelings, behavioral inhibition during childhood, an “anxious-ambivalent” attachment style, and lifetime symptoms of panic disorder (Bucci et al., 2012).

Separation anxiety at every life stage has been linked to insecure attachment to early caregivers (Bucci et al., 2012; Diamond & Keefe, 2024). Further, “a history of SAD is associated with anxiety disorders and dependent personality disorder traits in individuals with OCD” (Mroczkowski et al., 2011, p. 256). Due to its relatively overlooked symptoms and unappreciated comorbidity despite high prevalence, OCD patients should be evaluated for SAD symptoms and a plan for its management provided in clinical care of OCD (Franz et al., 2015).

Social Anxiety Disorder

“Social anxiety disorder (SAD) is a debilitating mental disorder characterised by a fear of evaluation from others and avoidance of social-evaluative situations” (Wong & Heeren, 2021, p. 1164). Comorbidity with OCD is reported to be 13.2% in a large community survey, and in which another 10.5% reported sub-clinical symptoms of SAD in comorbid OCD (Fehm et al., 2008). In a clinical sample of 115 patients with SAD, comorbidity with OCD was present in 22.6% of the sample, with subthreshold comorbidities present in 11.3% (Camuri et al., 2014).

While fear of social judgment is a shared trait, these disorders have been vastly understudied and little is known of shared etiological factors or clinical traits. Cognitive flexibility, response inhibition, and working memory have been shown to be impaired across both disorders, with OCD patients faring worse than SAD in all three domains (Rosa-Alcázar et al., 2021). One can only assume that comorbid OCD-SAD would show even more impairment, but unfortunately, this research has not yet been done.

Studies of adult attachment styles have correlated SAD with either a secure or an anxious–ambivalent attachment style. The insecure attachment group had a higher rate of patients with co-occurring AVPD and was more impaired (Eikenæs et al., 2016). This bit of information is a string to pull that could possibly begin to unravel the mystery of how OCD, AVPD, and SAD come together to manifest the wide range of cognitive and affective features of the disorder. It would seem to be highly correlated to scrupulosity viewing it from the attachment style angle. Future research should be very fruitful in this area.

Major Depressive Disorder

OCD is mostly commonly comorbid with depressive disorders (Barton & Heyman, 2016; Ruscio et al., 2010), with rates varying from 20%–62% in children with OCD to 50%–80% in adult samples (Bolhuis et al., 2014). Siev et al. (2021) report in their study comparing clinical presentation of scrupulosity and contamination OCD, that patients with scrupulosity had much increased rate of comorbid Major Depressive Disorder at 24.9% than patients with contamination obsessions (5.0%). They also suffered “more severe symptoms of depression” at nearly double the severity of symptoms with means, respectively, of 15.59 and 7.63 (Siev et al., 2021, p. 183). Siev et al. (2021) noted more research is needed to understand why “scrupulosity is truly

associated with elevations in depression symptoms, not that scrupulosity is simply a more severe manifestation of OCD” (p. 183).

Siev et al. (2021) hypothesized that this could be due to patients with scrupulosity having a self-concept “more threatened by the content of their symptoms, which does not match their moral and religious values” (p. 183). Feeling emotionally overwhelmed could lead to crippling depression and unwillingness to discuss begin therapy. “Depression is thought to interfere with OCD treatment by reducing motivation to engage in treatment and by interfering with the experience of habituation to anxiety during exposure therapy, possibly due to high reactivity” (Siev et al., 2021, p. 184).

Multiple studies have confirmed that severity of OCD is a predictor of future suicidal ideation (Balci & Sevincok, 2010; Benatti et al., 2021; Kamath et al., 2007; S. T. Kim et al., 2023). “Religious obsessions and repeating and reassurance compulsions have been found among suicidal attempters compared with non-attempters”(Balci & Sevincok, 2010; Kamath et al., 2007). Only one study to date has examined a purported association between scrupulosity and suicidality and failed to confirm the hypothesis.

We particularly wondered whether or not religious obsessions are associated with SI, since our sample included only Muslim subjects. We have found that although patients with SI tended to have more religious obsessions than patients without SI, this difference failed to reach a significance. (Balci & Sevincok, 2010, p. 106)

In cultural contexts where religion plays a defining role in social values, the relationship between suicidal ideation and themes of religious obsessional content should be the focus of future research to address this important question (Balci & Sevincok, 2010).

Eating Disorders

Anorexia Nervosa (AN) frequently co-occurs with OCD at a rate of 35%–44% (Crane et al., 2007; Kaye et al., 2004; Levinson et al., 2019). OCD typically precedes AN with typical onset in childhood (Kaye et al., 2004) and familial studies show a strong correlation in first-degree relatives for both disorders (Levinson et al., 2018, 2019; Lilenfeld et al., 1998). Halmi et al. (1991), found a 25.8% lifetime prevalence rate of comorbid OCD-AN at 10 years post-treatment for AN. Multiple studies show a concordance with other common diagnoses in the eating disorders spectrum, finding lifetime rates of OCD/AN- restricting type was 24.3% and 23.6% for binge/purge type (Pallister & Waller, 2008). Bulimia Nervosa (BN) non-purging type had a 16.7% lifetime co-occurrence with OCD while BN purging type was 9.4% (Godart et al., 2003).

A shared 55% genetic correlation strongly infers a shared neurobiological basis (The Brainstorm Consortium et al., 2018; Mas et al., 2013). In clinical studies, both AN and OCD respond well to selective serotonin reuptake inhibitor (SSRI) medication, indicating both are likely interacting with the body's serotonergic system (Serpell et al., 2002).

In addition to genotypic commonalities, studies have also shown a strong phenotypic similarity (The Brainstorm Consortium et al., 2018). The possibility of a relationship between OCD and AN was first suggested by Palmer and Jones (1939). DuBois (1949) suggested that the disorder we now call AN should be named 'compulsion neurosis with cachexia' (Serpell et al., 2002, p. 651). "Cachexia" is a complex, not easily reversible, metabolic syndrome characterized by muscle wasting usually due to disease (such as cancer) or in response to starvation (Baker Rogers et al., 2024). DuBois observed that "anorexia nervosa is fundamentally a compulsion neurosis, with cachexia as a leading symptom." Early researchers "observed

obsessive–compulsive elements in the personality of the patients they studied” consistent “with Freud’s anal-erotic character. . . .From early childhood both have been aggressive, perfectionistic, punctilious types of individuals with a marked sensitivity to sex and an unusual interest in bodily function and form” (DuBois, 1949, pp. 107, 110).

Shared traits among AN, BN, and OCD have long been noted in the literature for trans-diagnostic symptoms among their clinical presentations (Holden, 1990; Rothenberg, 1986).

The imperative, regularly recurring, and persistent thoughts of food conform with the typical pattern of obsessive thinking in the same way that the imperative urges to avoid food in a repetitive, illogical, and uncontrolled way conform with the typical pattern of compulsive acting (DuBois, 1949). Further, the patients do not eat because of lack of appetite, but because they are afraid to eat. (DuBois, 1949, p. 110)

However interesting is this connection, simpler biological explanations of the OCD-AN connection may be more compelling. In the aftermath of World War II, a rush to document the atrocities of the Nazi concentration camps led to “original many-sided research on the relation of food deprivation to human behavior and performance... one of the major scientific biological contributions that have resulted from World War II” (Miles, 1952, p. 735). The rationale for the well-known “Minnesota Starvation Experiment” (1944–1946) was explained by the authors of *The Biology of Human Starvation, Volume I*:

The need for an inclusive critical treatise on human starvation and undernutrition became abundantly clear to us when, after several years of work on the immediate problems of military subsistence, we began to ponder the large question of the feeding of peoples. Elementary calculations showed that not only were the world's stocks of food dwindling, but also that the war was devouring the resources for food production and distribution.

We were astonished to discover the paucity of knowledge on the effects of simple undernutrition, though here surely is the oldest and one of the most persistent of the disabilities which plague mankind. (Keys et al., 1950)

The study replicated the conditions of starvation to study the extreme biological and psychological effects, which would be prohibited today with current ethical standards for human research (Ball, 2014). The study's findings suggest that OCD symptoms of AN patients may at least be partly driven by malnourishment, and not evidence of a comorbid clinical presentation of OCD (DeCaro, n.d.). Thirty-six young male conscientious objectors to World War II consented to be honorably discharged in exchange for six months of starvation. The environment was tightly controlled and the men physically isolated and given calorie-restricted diets of mainly carbohydrates and no meat to replicate the conditions of concentration camp victims. The study began with a 12-week control period of observation followed by 24 weeks in which they were restricted to a daily average of 1,450 calories. "During the six months they were being starved, the men were expected to walk or run 22 miles (36 kilometres) every week, expending over 1,000 calories more than they consumed each day" (Ball, 2014).

A recovery period of 12 weeks followed in which the group was divided to study refeeding and rehabilitation. The actual recovery period took much longer and some effects were life-long. As they lost up to 25% of their pre-study weight, the men became obsessed with food, and startling changes in mood and cognition became obvious (DeCaro, n.d.). Self-report data on psychological effects was collected regularly. "Among the items showing large amounts of deterioration during starvation were "tiredness," "muscle soreness," "irritability," "apathy," "ambition," "self-discipline," and "concentration"" (Miles, 1952, p. 738). Emotional lability increased. "When something good happened, we would explode with joy and when we were

pessimistic we were very depressed,” one participant recalled (Ball, 2014). The weather affected mood more than usual, tempers flared, and friendships soured. One participant noted, “After you’ve not had food for a while your state of being is just numb” (Ball, 2014).

The cognitive effects surfaced early in the study and were nearly identical to the experiences commonly reported by those with restrictive eating disorders. For example, the subjects had difficulty thinking clearly and concentrating. They became hyperfocused on and preoccupied with food, recipes, and cooking. They talked excessively about food in conversation and experienced intrusive thoughts about it. The men even reported dreaming about food. (DeCaro, n.d.)

Other behavioral changes occurred and the men reported little interest in anything other than their obsessions. Any tasks that required solving problems involved too much mental effort. Mental focus, motivation, and self-discipline flagged. They became fixated almost entirely on food (DeCaro, n.d.).

The men engaged in new and abnormal behaviors during meals. Some would mix food together in unusual ways or eat very slowly, comparable to the food rituals frequently observed in eating disorders. Some subjects started hoarding items, stealing things, and collecting recipes and cookbooks. (DeCaro, n.d.)

In a review of the two-volume study report, Miles (1952) reports that Volume I focused on the biophysiological and medical implications of the study, but Volume II recorded in great detail the psychological and sociological ramifications of starvation, and includes,”chapters on psychological problems in starvation, behavior and complaints in natural starvation, behavior and complaints in experimental starvation and rehabilitation, intellectual functions, personality, psychological case studies, and psychological effects—interpretation and synthesis” (Miles,

1952, p. 737). No doubt these detailed results are eminently valuable to medicine and psychology because the study could not be replicated today. The report “raised many questions about how far psychological problems can be treated if the subject is still starving” (Ball, 2014).

The report therefore stands as the most complete and thorough, scientific review of the literature of starvation which has been compiled, and represents the most outstanding and comprehensive laboratory experimentation on starvation in human subjects and rehabilitation from its effects. (Miles, 1952, p. 737)

Though not specifically a focus of the study or the massive report, but of particular interest regarding OCD, Miles reports the men developed obsessions about food and compulsive actions meant to relieve their discomfort. Some men compulsively chewed gum, which were then limited to two packs a day, and many took up smoking and drinking coffee, a few of “many instances in the report of ways in which the subjects tried to get substitutes for the satisfactions normally derived in eating” (Miles, 1952, p. 738). Most developed idiosyncratic yet elaborate rituals around meals, “a characteristic of populations during normal famine” (Miles, 1952, p. 738). A common practice was drinking salted water before drinking the broth, then the solid food when they were served soup. “In bull sessions talk of food tended to dominate the conversation. A few apparently came to resent this “tyranny of food” over their conversation. One expressed disgust over this “animal attitude,” and another referred to it as “nutritional masturbation”” (Miles, 1952, p. 738).

During the recovery period, the men regained weight and the symptoms of cognitive and physical impairment were mainly relieved with adequate nutrition and calories within three months, though several reported cognitive difficulties up to one year later. One participant reported he continued to struggle with food daily for another three years (DeCaro, n.d.). During

the re-feeding period, “two subjects recalled eating to the point of involuntarily purging and one required hospitalization for gastric distension” (DeCaro, n.d.). Their other compulsive behaviors gradually lessened as they returned to normal weight. The study does not report subsequent mental health issues as no long-term follow-up was initially planned or data gathered. So, it is unknown how or whether the obsessive and compulsive traits disappeared concomitantly with weight gain (DeCaro, n.d.).

Some other effects to emotional health were experienced long after the experiment ended. All participants reported intermittent lifelong struggles with disordered eating, including binge eating, which none had experienced before the experiment. The study does document widespread depression both during the study and immediately after. Seven decades later, researchers followed up with participants then in their 90s. One of the long-term negative effects of participation the study was abnormally high retrospective self-reports of depression (DeCaro, n.d.).

While some effects to eating patterns during times of stress were lifelong, the men fully recovered physically and “went on to live interesting and productive lives” (DeCaro, n.d.). Interestingly, there is early evidence of post-traumatic growth and resilience. In narrative interviews of the men reflecting on the study’s impact on the rest of their adult lives, they report poor sociological functioning or lower than normal rates of mental illness other than infrequent periods of depression. It seems the men rebounded and made a sincere effort to live life to the fullest.

In times of food scarcity, obsessive–compulsive symptoms are *prima facie* evolutionarily adaptive as proactive food-seeking behavior to avoid starvation (Serpell et al., 2002). Regardless of the direction of the relationship between OCD and AN, it is clear there is a strong correlation

between the disorders if only due to the obsessional fixation on food and strong compulsive eating and elimination behaviors. “The persistent preoccupation with food early in anorexia nervosa, before starvation, together with rituals involving starvation, vomiting, food fads, laxatives or diuretics make the obsessive–compulsive hypothesis at least as plausible as the affective disorder theory” (Holden, 1990, p. 2).

Obsessive thoughts of all kinds were found to be the most salient symptom of OCD for AN patients in a study comparing the symptoms of the two disorders (Levinson et al., 2019). Intrusive thoughts about their eating disorder symptoms and behaviors were cited as the most disturbing of AN sufferers’ already heightened negative cognitions (K. E. Smith et al., 2018). However, rumination and repetitive negative thinking of all types of troubling thoughts is a prominent predictor of AN (Levinson et al., 2019).

Relating these findings to scrupulosity, there is ample historical evidence that the two disorders have often been known to coexist (Osborn, 2008). The widespread phenomenon of fasting to the point of starvation during the Renaissance was considered a mark of piety and spiritual enlightenment (Osborn, 2008). The directive to fast and pray on important religious holidays emphasized the need to continually strive for spiritual growth. As Moral Theology became prominent and emphasized purity of thought, it is easy to see how intrusive thoughts of worry over one’s spiritual condition could increase the need to fast while seeking continual reassurance. As seen in the Minnesota Starvation Experiment, prolonged food deprivation leads to physiological changes that increase intrusive thoughts about food (DeCaro, n.d.). In the religious climate of the Renaissance, this had the effect of contributing to widespread eating disorders among clergy and laity (Osborn, 2008).

In contemporary research on comorbid AN and scrupulosity, there is just one study of a case of starvation due to religious obsessions and compulsions (Sharma et al., 2006).

A 25-year-old, postgraduate, married Hindu man presented with a history of 4 years of gradual change in behaviour in the form of repeated checking rituals, overzealous indulgence in religious activities, repeated thoughts that he might say or do something blasphemous...The patient also started fasting in religious context twice a week initially, which he gradually increased in frequency despite opposition from family members. (Sharma et al., 2006)

The patient began to limit his food to a glass of milk and one banana each evening, and stopped eating altogether three days before his family took him to the hospital. He was emaciated and dehydrated and at 34 kg, he was 50% of his pre-eating disordered weight. He initially refused oral medication because he believed it would break his fast. “Development of poor insight and minimal resistance to obsessions at a later stage may partially be attributed to intertwining of the obsessions and compulsions with his religious life” (Sharma et al., 2006, p. 266). After a week on fluoxetine, he regained some insight as to his condition and began therapy as part of a long recovery process.

The lack of any other studies considering the likely prevalence of eating disorders as part of religious practice points to lack of awareness in the research community. There is increased potential for comorbid OCD-AN among religions that advocate routine fasting. Fasting as a spiritual practice is common among major world religions. It is typically considered, as during the European Renaissance, a sign of spiritual discipline and evidence of purity of thought. Concern for purity of thought is a strong candidate for obsessional attention. “Areas of the world

that have strict religious moral codes are more likely to have high frequencies of patients with religious obsessions” (Shooka et al., 1998).

Neurodevelopmental Disorders

Autism

Of all the most prevalent comorbidities with OCD, autism presents the closest model of its relationship to OCD to the relationship of OCD and scrupulosity. Both share notable clinical characteristics, overlapping symptoms, and difficulties with diagnostic discrimination, yet bear specific etiological, emotional, and motivational characteristics that clarify an important distinction (Anholt et al., 2010; Ivarsson & Melin, 2008; Lamothe et al., 2022; Leyfer et al., 2006; Meier et al., 2015).

In a recent meta-analysis of anxiety disorders co-occurring with autism, OCD was found to be the second most prevalent comorbidity at 17.4% after specific phobia (29.8%) and followed by social anxiety disorder at 16.6% (Van Steensel et al., 2011). Comorbidity “contributes to functional impairment over and above the functional deficits of ASD with important implications for treatment” (Van Steensel et al., 2011, p. 302). Concurrent with findings in OCD, comorbid OCD-autism had an overall effect of reduced verbal scores on intelligence tests that was positively correlated to severity of autism impairment in adults (Lamothe et al., 2022). The pattern of comorbidities also offers important information as it implies a difference in OCD prevalence between milder and more severe impairment in autism. In a meta-analysis, the severity of OCD symptoms increased along with severity of autism (Van Steensel et al., 2011). Interestingly, Van Steensel et al. reported that severity of specific phobia also was positively correlated with OCD-ASD severity, but generalized anxiety showed the opposite trend,

suggesting that anxiety disorders may have a similar spectrum of severity with specific phobia at the more severe end, and generalized anxiety as a less severe presentation of the spectrum.

Risk factors also point to increased incidence of autism among people with OCD and vice versa. Meier et al. (2015) made a population-based prospective study to determine risk of developing OCD for patients with autism and their parents as well as the risk to OCD patients of an autism diagnosis. They found a two-fold higher risk of a later diagnosis of OCD for patients with autism and a “nearly 4-fold higher risk for patients with OCD to be diagnosed with autism spectrum disorders later in life” (Meier et al., 2015, p. 1). Familial risk of autism in children of parents with OCD was at a similar risk for OCD in extended family members. The combination of high comorbidity, markedly increased longitudinal risk of comorbidity, and familial concordance were all significant and strongly suggests “partially shared etiological mechanisms between these severe mental disorders” (Meier et al., 2015, p. 9).

Across multiple studies, Autism Spectrum Disorder (ASD) has been found to share a number of clinical symptoms, personality traits and behavioral patterns with OCD (Ivarsson & Melin, 2008; J. I. Kang et al., 2012). Shared traits of OCD-ASD included rigid, scripted social interactions that are compulsively performed, and deficits in social reciprocity. These were correlated to deficits in emotional perception, alexithymia, in oneself and others (J. I. Kang et al., 2012). “Although little research on emotional awareness in OCD has been conducted, clinical findings shown in patients with OCD support the possibility that a lack of emotional awareness is important to the underlying pathophysiology of OCD” (J. I. Kang et al., 2012, p. 286). Similar deficits in social-emotional reciprocity and communication are diagnostic for autism (American Psychiatric Association, 2017, 2022).

In analysis of overlapping symptoms between ASD and OCD, rigidity of behaviors across solitary behaviors as well as in social interactions was also a common factor (Leyfer et al., 2006). Almost half of the children had compulsions involving rituals for daily routines and social scripts for greetings and goodbyes and other repetitive social interactions that the children insisted upon performing or having other people perform with them (Leyfer et al., 2006).

Additional core features of autism share similarity to underlying issues contributing to OCD, including “a range of associated difficulties including cognitive and attentional deficits, behavioral symptoms, disturbances of mood, and a lack of fear to real dangers and/ or excessive fearfulness in response to harmless objects” (Van Steensel et al., 2011, p. 302).

The converse is also true. Obsessive–compulsive tendencies have long been recognized in common symptoms of autism such as perseverative behaviors, ritualizing, singular focus on topics of interest with obsessional intensity, and low emotional awareness (Ivarsson & Melin, 2008; J. I. Kang et al., 2012) The phenomenological overlap in symptoms may be a case of using different labels and descriptions for essentially the same behaviors (Bedford et al., 2020; Ivarsson & Melin, 2008). In autism, patients have a strong preference for “restricted, repetitive patterns of behavior, interests, or activities ... stereotyped or repetitive motor movements, use of objects, or speech ... lining up toys ... insistence on sameness ... or ritualized patterns of verbal or nonverbal behavior” (American Psychiatric Association, 2017, 2022). The similarity of descriptions of fixation, intensity, precision, and perseveration stand out in both descriptions. “Many patients have ordering and symmetry compulsions, as well as repetition compulsions harboring a wish for a “just right” feeling, even to the extent that this can be thought of as a particular OCD-factor, i.e., “Symmetry and Ordering”” (Ivarsson & Melin, 2008, p. 970).

Of course, symptoms of both disorders are broadly heterogeneous, and despite overlap, have distinctive characteristics that make it possible to meet criteria for one or the other, or both as comorbid disorders. Usually, one predominates by earlier onset or more severe impairment, making it possible to discern which should be considered the primary condition (Bedford et al., 2020). But the distinction is not without consequence. With such crossover, it is important to delineate specificity for each diagnosis in order to tailor treatment appropriately.

Comorbidities in both disorders are common and not necessarily specific. With this in mind, a latent class analysis of the core clinical characteristics of OCD symptoms and 18 common comorbidities helped drive toward more specificity. These factors included “familiality, childhood trauma, age at onset, illness severity, OCD symptom dimensions, personality characteristics, and course of illness” (Van Oudheusden et al., 2020, p. 1). About 35% had OCD with no comorbidities, and another approximately 44% had lifetime comorbid major depressive disorder. In the one-quarter remaining patients with high comorbidities, significant clusters were found for a generalized anxiety subgroup (11.6%), an autism/social phobia-related subgroup (6.4%), and a psychosis/bipolar-related subgroup (2.3%; Van Oudheusden et al., 2020).

Autism within OCD represents a small but very significant comorbidity with distinct features that may be phenotypically unique. Autistic traits are “prevalent in OCD and seem to be intricately associated with the comorbidities as well as the OCD syndrome itself” (Ivarsson & Melin, 2008, p. 969). Van Oudheusden et al. (2020) found OCD in 7% of 419 patients, and the cluster of unique clinical characteristics, including childhood onset, suggest it may be a distinct phenotype (Van Oudheusden et al., 2020). Notably, “all subjects in this class also have a lifetime diagnosis of social phobia” (Van Oudheusden et al., 2020, p. 5). The authors noted this may be

due to phenomenological overlap in the social domain between the nosology of ASD and social phobia.

As might be expected for two disorders with symptoms of rigidity and preference for control, this group was “associated with a higher score on the symmetry/ordering symptom dimension” than all other groups (Van Oudheusden et al., 2020, p. 7). Further analysis of OCD symptoms was made in a case-controlled study of patients with autism that found a distinct divide in their types of repetitive thoughts and behaviors (McDougle et al., 1995).

Repetitive ordering; hoarding; telling or asking (trend); touching, tapping, or rubbing; and self-damaging or self-mutilating behavior occurred significantly more frequently in the autistic patients, whereas cleaning, checking, and counting behavior was less common in the autistic group than in the patients with obsessive–compulsive disorder. (McDougle et al., 1995)

The content of obsessions was qualitatively different, as well. Whereas patients with autism were more sensory-oriented or fixated on subject areas of particular interest, the OCD group experienced significantly more disturbing cognitions among their obsessions. “Compared to the obsessive–compulsive group, the autistic patients were significantly less likely to experience thoughts with aggressive, contamination, sexual, religious, symmetry, and somatic content” (McDougle et al., 1995).

This data point is potentially relevant to the study of scrupulosity in that lower prevalence of sexual and religious content indicates a potentially lower prevalence of comorbid OCD and autism among people with scrupulosity. Hopefully, future research will lead to further elucidation of the strength of this connection. This information would be useful in determining phenotypic distinction for scrupulosity, whatever the results.

This deep dive into shared features of OCD and autism is also instructive on the difficulty of determining phenotypical differences using a primarily symptom-based system such as DSM-5 and DSM-5-TR and symptom-based measures. As most cognitive and affective traits are dimensional rather than categorical, and typically show up in various combinations across many disparate disorders, it is difficult to rely on symptoms as discriminant factors without considering at length the variety of contexts and severity of how these symptoms present.

Sensitivity to such factors may help insight into important etiological differences or underlying factors that help to determine specificity in a clinical setting. Again, this is instructive for analysis of the OCD-scrupulosity link because, like autism-OCD, treatment outcome is improved with better understanding (Bedford et al., 2020; Van Steensel et al., 2011).

Theoretically, the nature of the relationship of OCD and autism have long been debated. On the nosological end of the spectrum represented by the DSM, though frequently comorbid, they are considered distinct psychopathology. On the phenomenological and clinical utility opposite end of the spectrum, autism can be argued to represent a more severe functional impairment among the obsessive-compulsive spectrum disorders (Bedford et al., 2020).

Researchers have noted, however, clear differences that help to discern their distinction (Bedford et al., 2020). First, the emotional valence of affective traits differ. OCD is associated with anxiety and distress that increases with severity of impairment. Meanwhile, autism is characterized by intense pleasure engaging in repetitive interests. Both serve the purpose of self-soothing for anxiety, however (Bedford et al., 2020).

Second, the purpose and functional outcome of compulsive actions is different. In OCD, the repetitious behaviors serve a purpose in reducing anxiety brought on by the obsessional content, which is aversive. Compulsions are not usually performed for enjoyment, but tend to

increase disturbance over time. In autism, stereotyped behaviors are done both to modulate anxiety as well having a quality of sensory self-stimulation and unclear purpose beyond bringing sensory pleasure or when bored or anxious (Bedford et al., 2020).

Third, there is a specificity of OCD compulsions to obsessions that is generally lacking in autism. People with autism tend to use the same stereotypies with various stimulus whereas OCD compulsions relate specifically to a particular obsession even if a direct correlate of content is undiscernible. As obsessions become more widespread and the disorder progresses in severity, compulsions morph with them because they decrease in efficacy unless modified (Bedford et al., 2020).

Fourth, OCD is characterized by an “otherness” where the patient feels out of control and as if their autonomy is threatened and they are powerless to change, while people with autism tend to engage in stereotypies in a self-willed manner as they exert control. It is perceived as a volitional act and is usually induced whenever desired (Bedford et al., 2020). Attending to these, and other individual differences in a thorough clinical interview makes it possible to make a sound differential diagnosis and direct the patient to more effective treatment (Bedford et al., 2020).

Recent studies have found that conventional CBT treatment targeting OCD is less effective for patients with comorbid OCD-ASD, with little improvement seen until post-treatment, and lower remission rates overall (Bedford et al., 2020). Adapted CBT protocols tailor the manualized therapy for the needs of patients with autism and show moderately improved success over traditional CBT.

Another innovation is “Function-Based CBT” (Fb-CBT), a novel treatment approach combining CBT principles and applied behavioural analysis (ABA) to identify the function of

OCD behaviours and reinforce alternative, adaptive patterns of behaviour” (Bedford et al., 2020, p. 7). While comorbidities tend to have an additive effect on mental health symptoms, it can also change them qualitatively in a way that necessitates further attention. No studies to date have specifically focused on autism comorbid with scrupulosity, or reported prevalence of scrupulosity obsessions among an ASD population. So, it remains to be discovered if and how the prevalence varies from other comorbid disorders.

Attention Deficit Hyperactivity Disorder

Categorical versus dimensional differences are pertinent to research on ADHD-OCD comorbidity, as well. Studies of OCD-ADHD have ranged widely from 0–70% comorbidity, likely due to use of a wide range of constructs and measures (van Steensel et al., 2011). In Leyfer et al.’s (2006) comorbidity study of ADHD, OCD, and autism, ADHD was the third highest comorbidity with autism at 33%, following OCD and specific phobia.

At first glance OCD and ADHD appear to be opposites in that OCD is an internalizing disorder characterized by restrained behavior, with hyperfixation on obsessional content often related to avoiding harm or risk. ADHD is an externalizing disorder typically involving impulsivity such as risk-taking, with attentional distractibility and novelty-seeking occupying one’s thoughts (Abramovitch et al., 2015, p. 246). These symptoms seem to be at odds and unlikely to co-exist in the same person.

However, there are many similarities underlying ADHD and OCD that could easily be misattributed and then misdiagnosed (Abramovitch et al., 2013). Both disorders have attentional difficulties and impulse control issues. While OCD presentation looks over-controlled, people with OCD secretly harbor intense impulses they struggle to contain that are released

intermittently in compulsive actions, similar to inhibitive control issues seen in ADHD (Abramovitch et al., 2013).

Further, both disorders have exhibited memory problems and inability to shift attention appropriately. It is little appreciated that ADHD also presents with intense, obsessional focus—“hyperfocus”—on subjects of interest and perseveration with little distractibility when engrossed. It has been correlated to “reduced perception of irrelevant stimuli and improved task performance” (Grotewiel et al., 2023, p. 13265) and “characterized by extended moments of deep focus that are difficult to terminate (Ayers-Glassey & Smilek, 2024). It is sometimes equated with the creative process of “flow” and increased creativity (Ashinoff & Abu-Akel, 2021; Grotewiel et al., 2023; Hupfeld et al., 2019).

While in hyperfocus, people with ADHD just “tune out” (Ashinoff & Abu-Akel, 2021) or fall “under a hypnotic spell” (Hupfeld et al., 2019). Likewise, OCD patients hyper-fixate on content of their obsessions. Hyperfocus has even been used to describe the intense, singular focus apparent in autism (Ashinoff & Abu-Akel, 2021). “Although most neurotypical people would likely report experiencing a hyperfocus-like state at some point in their life, it is most often mentioned in the context of autism, schizophrenia, and attention deficit hyperactivity disorder—conditions that have consequences on attentional abilities” (Ashinoff & Abu-Akel, 2021, p. 1). Paradoxically, though OCD and ADHD present with opposing clinical profiles, they often underperform on “tasks of executive functions, including working memory, planning, and response inhibition” and “present similar neuropsychological profiles” (Abramovitch et al., 2015, p. 247).

Difficulty in executive function is evidence there may be an underlying neurobiological axis, an “impulsive-compulsive continuum...(where) the compulsive end of this continuum—

which is associated with OCD—is characterized by harm avoidant and risk-averse behaviors. Conversely, the impulsive end of the continuum is characterized by behavioral impulsivity (i.e., behaviors lacking forethought) and risk taking” (Abramovitch et al., 2012, p. 58). Risk-taking and impulsivity in ADHD and harm avoidance in OCD “seem to lie at the opposite ends of a continuum” (Abramovitch et al., 2013, p. 58).

The timing, repetition, and accuracy of OCD rituals require “precise allocation of focused attention on different sets of stimuli” that place “high cognitive demands” and resemble working memory subtests of intelligence (Abramovitch et al., 2013, p. 58). Such precisely repetitive rituals are beyond the abilities of people with ADHD to perform, nor are they observed clinically. Likewise, there is no “evidence suggesting reckless, impulsive, or risk taking behaviors in individuals with primary OCD” (Abramovitch et al., 2013, p. 58).

Inherent polarity of this neurobiological substrate is also evident in neurochemical differences between the disorders: the impulsive end of the spectrum is mediated by dopamine while the compulsive end is mediated by serotonin (Hollander, 2005). Though they initially appear diametrically opposed, in function, they are controlled along coordinated pathways that together modulate attention (Abramovitch et al., 2015). Further evidence of this coordinated function is seen pathophysiologically in abnormal activity in the frontostriatal system and related pathways in both ADHD and OCD (Abramovitch et al., 2015).

The frontostriatal functional abnormalities contrast sharply, however, between the two disorders. OCD is associated with abnormally increased activity (hypermetabolism) in frontal and striatal regions such as the orbitofrontal cortex, the basal ganglia, and thalamus. Furthermore, OCD patients exhibit hyperactivated frontostriatal functional connectivity. (Abramovitch et al., 2015, p. 247)

As fits the polarity model, OCD and ADHD may be elicited from over- and under-function of the prefrontal and striatal regions.

By contrast, decreased activity (hypometabolism) in similar prefrontal and striatal brain regions has repeatedly been found in ADHD, along with correspondingly reduced frontostriatal connectivity. (Abramovitch et al., 2015, p. 247)

Testing Hollander's 2005 hypothesis of an impulsive-compulsive neurobiological continuum, Rubia et al. (2011) assessed brain activation with functional MRI to measure interference inhibition and attention allocation. They found "abnormalities in inhibitory control and underlying fronto-striatal networks is common to both attention deficit hyperactivity disorder (ADHD) and obsessive-compulsive-disorder (OCD)" (Rubia et al., 2011, p. 601). These are "disorder-specific abnormalities in neural networks mediating interference inhibition and selective attention" (Rubia et al., 2011, p. 601).

A similar inter-related system of inhibition and discontrol may govern the extremes of selective attention seen in ADHD hyperfocus and distractibility, the inability to sustain focus (Abramovitch et al., 2015). This reflects the complexity of inter-related neurochemical processes that control executive function and which are ineffectively modulated in ADHD and OCD.

Both disorders shared dysfunction in the mesial frontal cortex. Disorder-specific dysfunctions, however, were observed in dorsolateral prefrontal cortex in OCD patients and in caudate, cingulate, and parietal brain regions in ADHD patients. (Rubia et al., 2011, p. 601)

While there is not yet an established orthodoxy on how serotonin and dopamine interact, research in the past several decades points to a strongly a significant interaction. "There seems to be a consensus in the literature that a fronto-subcortical dysfunction is responsible, at least in

part, for the ADHD spectrum” (Genro et al., 2010, p. 587). The dopamine (DA) hypothesis is important to understanding ADHD pathophysiology because it is prevalent in these areas of the brain (Genro et al., 2010). Evidence for separate contributions of DA and serotonin (5-HT) has been found in both genetic and neuroimaging studies. The functioning of both are altered in ADHD in all phases, neurotransmitter uptake, synthesis and breakdown. The evidence strongly suggests a difference not an anatomical structure but in pre- and post-synaptic location of 5-HT receptors that influence inhibition and facilitation of synaptic function (Oades, 2008).

There also may be different ADHD subgroups based on either behavioral externalization or cognitive impulsivity, often thought to be the same mechanism. However, “there is clear evidence that DA and 5-HT neuronal systems can and do interact anomalously in ADHD” (Oades, 2008, p. 603). Based on Rubia et al.’s findings, and with these underlying similarities in attention difficulties, the accuracy of differential diagnosis based on a shallow appraisal of external behaviors should be questioned (Abramovitch et al., 2013). Most children are diagnosed with ADHD using symptom-based structured diagnostic interviews by pediatricians and parent- and teacher-reported symptom checklists (Geller et al., 2004). “OCD-related attentional impairment could be misdiagnosed as ADHD symptoms” (Abramovitch et al., 2013, p. 53). Diagnosticians need to “be mindful that OC symptomatology has the possibility to manifest through ADHD-like symptoms” (Abramovitch et al., 2013, p. 59). Interestingly, ADHD symptoms in childhood are considered by some researchers to be “a developmental marker of juvenile OCD” (Reddy et al., 2010, p. 206).

This is especially important since ADHD is commonly treated with stimulant medication that exacerbates OCD symptoms, especially at the clinically-recommended dosages tolerated well by most patients (Abramovitch et al., 2013, p. 53). However, both disorders respond

positively to selective serotonin reuptake inhibitors (SSRIs) which may be under-utilized in pharmacotherapy, particularly for treatment-refractory cases. Pampaloni et al. (2010) found that a higher than recommended dose was helpful in “increasing SSRI bio-availability...in case of insufficient response” citing “growing evidence supporting a positive dose–response relationship for SSRIs” (Pampaloni et al., 2010, pp. 1439–1440). In a population with enduringly high OCD symptoms, higher doses of SSRIs were well tolerated and correlated with clinical improvement. This tantalizingly indicates a more severe clinical presentation of OCD than ADHD along a continuum of disruption in the DA/5-HT pathway.

Why might high doses of SSRI produce clinical benefits for patients with OCD? The mechanism of effect for SSRIs in OCD is not yet clear. Specifically, doses used in OCD exceed those needed for depression and other anxiety disorders and are also substantially higher than necessary to completely inhibit the serotonin transporter. (Pampaloni et al., 2010, p. 1444)

Potential for misdiagnosis also extends to false comorbidity (Abramovitch et al., 2015). Due to opposite directions of action wherein “OCD patients exhibit frontostriatal hyperactivation, whereas ADHD patients exhibit frontostriatal hypoactivation” (Abramovitch et al., 2015, p. 245), it is theoretically impossible for true comorbidity to be present.

Conceptually, the notion of genuine comorbidity between the two disorders (i.e., simultaneous presentation of the two disorders; as opposed to false comorbidity, where symptoms of one disorder mimic those of the other) is not easily reconciled with the fundamental neurobiological, phenomenological, and behavioral differences between ADHD and OCD. (Abramovitch et al., 2015, p. 245)

An alternate explanation accounts for the directionality of the neurobiological processes as well as the observed behaviors of OCD-ADHD, which Abramovitch et al. (2013) label an “Executive Overload Model” of OCD. Due to frontostriatal hypoactivity, executive functions such as “attention, memory, and working memory tasks” (p. 57) are inhibited in people with ADHD. But “the continuous and excessive attempts to control behavior and thoughts manifest in an overflow of obsessive thoughts which in turn “flood” the executive system and thereby impair neuropsychological functioning in OCD” (Abramovitch et al., 2013, p. 57). It sounds like they are describing the mutually reinforcing effects of both neurotransmitters malfunctioning: serotonin failing to limiting inhibition and allowing OCD compulsions to dominate, and the inability of dopamine to fully control ADHD-like impulses. In other words, a supposedly comorbid presentation represents a bi-directional dysfunction of both DA and 5-HT as Pampaloni et al. (2010) hypothesized.

Considering that research has yet to fully establish how these two neurotransmitters effect one another in a dynamic system, it is possible that struggles with OCD obsessions could lead to difficulties inhibiting other impulsive behavior and directing intentional focus of attention. “These findings support the predictions of the executive overload model of OCD, suggesting that ADHD-like symptoms in OCD may be a consequence of OCD symptomatology” (Abramovitch et al., 2013, p. 53). This is “an alternative explanation for the common notion of full-blown comorbidity between OCD and ADHD in adults” (Abramovitch et al., 2013, p. 59).

The pattern of this alternate model explains so well the functional outcome of problems with an impulsive-compulsive continuum. A similar spectrum-like, antithetical-appearing system of symptoms could underlie scrupulosity and OCPD, as well. Considering that dopamine also works to enhance pleasure and positively reinforce behavior, it is probable that it encourages

ego-syntonic cognitions such as seen in OCPD. On the other end of the continuum, serotonin may make it more difficult to suppress compulsive impulses, and induces a negative emotion that drives an ego-dystonic response of an OCD obsession.

While the complexity is staggering, it places OCPD and OCD within this same neurotransmitter functional system as a continuum of obsessive–compulsive behaviors, and elegantly knits together the disparate experiences patients experience with both disorders. Further, obsessional content that induces a pleasurable sensation, such as religious obsessions seen in scrupulosity, could via dopamine reinforce not only the spiritual experience of exercising faith, but, acting on serotonin, concomitantly exacerbate pathological doubt and reduce inhibitory control of compulsions. Thus, evidence for the OCD spectrum acting as a unifying substrate upon which other disorders manifest differently due to specific neurotransmitter deficits and/or synaptic dysfunction is quite strong.

A Possible OCD-Autism-ADHD Phenotype

In Leyfer et al.'s (2006) OCD comorbidity study, no data was shared about three-way comorbidity, but they reported less than 20% of the children had three or more comorbid conditions. However, researchers have theorized an OCD-ASD-ADHD phenotype based on shared traits seen in clinical observation of executive function deficits such as attention and social skills deficits (Anholt et al., 2010). While most studies have been of children, a cohort of adult OCD outpatients found that those with comorbid ADHD reported more autism symptoms than the OCD-only patients (Anholt et al., 2010).

Further, the severity of OCD symptoms among both the the OCD-ASD-ADHD and non-ADHD groups did not vary with severity of ADHD, suggesting “an interrelatedness of ADHD symptoms with autism symptoms in OCD” in accordance with previous studies of

children (Anholt et al., 2010, p. 585). The nature of the commonality seems to do with attention, particularly shifting attention and working memory.

Executive function was assessed with measures of attention developed separately for ADHD and autism. Attention switching was operationalized as “the difficulty to divert attention between tasks,” while inattention was “the difficulty to sustain attention on a given task” (Anholt et al., 2010, p. 585). The autism measure subscales for communication problems and attention switching, and the ADHD inattention subscale each predicted OC symptom dimensions except for hoarding. Therefore, these constructs may represent “two ends of the same underlying attention problems” (Anholt et al., 2010, p. 585).

This may be rooted in OCD patients’ uncertainty about their own cognitive processes. “Recent research on memory distrust in OCD has found that OCD patients exhibit lack of confidence in their own perception, attention and memory, without clear evidence for an objective memory deficit” (Anholt et al., 2010, p. 587). This points to an interesting process wherein memory problems due to inattention and switching attention may be related to an increased feeling of uncertainty about their cognitive processes (Anholt et al., 2010). Along with other OCD cognitive misappraisals, poor memory could exacerbate doubt into a full-blown OCD cycle, and repetitive performance of compulsions would further affect memory. “Difficulties in the management of attention may serve as a common factor between OCD, ADHD and ASD symptoms and explain the pathological doubt/uncertainty that seems to characterize these disorders” (Anholt et al., 2010, p. 587).

No examination of individual OCD cognition content was included in this study, so it is not possible to determine if typical taboo thoughts of scrupulosity vary in any way with combined OCD-ASD-ADHD (Anholt et al., 2010). This leaves an interesting question for future

research should a distinct OCD-ASD-ADHD phenotype emerge and comparison made with other more symptom- and content-based phenotypes of OCD.

Psychosis

Observed across multiple diagnoses in the spectrum of psychotic disorders, including bipolar disorder, schizoaffective disorder, and schizophrenia, OCS often begin and continue to intensify during the prodromal period of the first episode of psychosis (Grover et al., 2019). OCS often subside during psychotic episodes due to the lost function of insight with frank psychosis only to re-emerge as psychosis fades (Stengel, 1945).

In patients with first-episode psychosis, OCS correlates to “earlier age at onset, higher psychotic symptom severity, and poorer ... vocational function,...worse premorbid functioning, more severe depressive symptoms, and social dysfunction” (Michalopoulou et al., 2014, p. 1015). OCS also predicts lower quality of life (Eisen et al., 2006), and a worse course of disease among those with psychosis (Swets et al., 2014).

In a large retrospective study of over 22,000 patients diagnosed with a psychotic disorder, prevalence of comorbid OCS was 13–23% for bipolar disorder and, consistent with other studies, 12–23% for schizophrenia and schizoaffective disorder (Ahn-Robbins et al., 2022). “OCS precede the onset of psychotic symptoms and compared to those without OCS, those with OCS have worse outcome in multiple domains (longer hospitalisation, poor employment rates and poor functioning)” (Ahn-Robbins et al., 2022).

It is unclear how comorbid OCS interacts with psychotic disorders when they are also comorbid with anxiety and depression, as commonly occurs. Two meta-analyses found depression to be comorbid with psychotic disorders 23%–45% of the time and anxiety at a rate of 15%–29% (Fusar-Poli, 2017; Wilson et al., 2020). Both affective disorders are indicators of

“ultra-high risk for psychosis (UHR)” often seen increasing in severity during the prodromal period of first-episode psychosis (Fusar-Poli, 2017; Grover et al., 2019). Depression tends to abate somewhat in the most acute phases of psychosis, as do OCS, and increase the risk of developing syndromal schizophrenia as they increase in severity (Fusar-Poli, 2017).

Schizophrenia

The outlook for comorbid schizophrenia-OCD is “accompanied by marked subjective burden of disease, high levels of anxiety, depression, and suicidality, increased neurocognitive impairment, less favourable levels of social and vocational functioning, and greater service utilization” (Zink, 2014, p. 1).

High rates of comorbidity of OCD and schizophrenia have been prevalent from early studies (Stengel, 1945), but predominantly as schizophrenia presenting with OCD more often than OCD with comorbid schizophrenia. “Among patients with schizophrenia, prevalence of obsessive–compulsive symptom (OCS)/obsessive–compulsive disorder (OCD) is about 14% and 26% respectively” (Grover et al., 2019). This reflects a general increasing severity of both disorders when comorbid. An increase in severity of one increases the likelihood of an escalation of severity in the other (Swets et al., 2014).

In a hierarchy of mental health diagnoses, schizophrenia has been considered over the past century to trump in severity almost all psychiatric diagnoses so that its diagnosis would cancel out “lower order” diagnoses such as anxiety and depression (Buckley & Hwang, 2015).

Implicit in the Kraepelinean classification tradition is a hierarchy with the following order: organic mental disorders, nuclear schizophrenia, manic-depressive illness, and neurotic illnesses. The presence of any disorder from this hierarchy would preclude a diagnosis lower on the hierarchy. ... Such a hierarchy implies that the presence of any

disorder could cause manifestations of disorders lower in the hierarchy. (Boyd, 1984, p. 984)

In such a systematized prioritization structure, OCD would supersede affective disorders, but schizophrenia would trump OCD. However, clinical presentation is rarely so cleanly divided between separate disorders. Also, consideration for which disorder develops first and which has the more unmitigating course can make it somewhat confusing to diagnose, leading to underdiagnosis of OCD when symptoms of psychosis are present. OCD symptoms are seen at all stages of schizophrenia to varying degrees and associated with a worse outcome (Grover et al., 2019). Since Stengel (1945) first suggested that obsessions and delusions appear in a continuous range of severity, multiple clinical descriptions of patients with comorbid OCD and schizophrenia have shown that the obsessive–compulsive traits precede first onset of psychosis, follow a remitting course as psychosis worsens and then re-emerge as psychotic symptoms remit (Grover et al., 2019; Stengel, 1945).

Perhaps this is normal variation in symptom presentation across the spectrum of both disorders which are actually one continuous spectrum. Considering these are commonly comorbid conditions, the complex interrelationship has not yet been described adequately within an integrated framework. In determining which diagnosis is primary, it can be difficult to determine which symptoms came first and how to proceed with treatment.

OCS/OCD ... is seen in all the stages of schizophrenia, starting from at risk mental state to chronic/stabilisation/deficit phases. Symptom profile of OCS/OCD in schizophrenia is similar to that seen in patients with OCD only. Presence of OCS/OCD is associated with higher severity of symptoms of schizophrenia and more negative outcome. (Grover et al., 2019, p. 63)

Considering that obsessive–compulsive symptoms are seen so regularly in patients with schizophrenia, it does beg the question whether OCS are simply a phenomena seen in the more severely affected patients with schizophrenia or better explained as a separate comorbidity. There are many factors to consider here, such as the observed interaction of OCS falling and rising again as the acute psychotic episodes of schizophrenia wax and wane (Grover et al., 2019).

Obsessive–compulsive symptoms (OCS) are commonly observed in the pre-illness, prodromal, first-episode, and chronic stages of schizophrenia. Similarly, patients with obsessive–compulsive disorder (OCD) can present with delusional levels of conviction that border on psychosis. Transitions between OCD and schizophrenia spectrum disorders are also common. The phenomenological overlap between obsessions and delusions can be challenging for accurate diagnosis and treatment planning. Clinicians may struggle to differentiate obsessions from delusions in severe OCD and similarly may not know if the emerging obsessive symptoms in schizophrenia require specialized OCD treatment. (Guyenek-Cokol, 2023, p. 199)

Strangely, the content of obsessions does not tend to transform into more elaborate or related delusions, but instead, the “presence of obsessions lead to difficulty in interpreting delusions and hallucinations, suggesting that obsessions modify the psychotic symptoms” (Grover et al., 2019, p. 64). As obsessions tend to be outliers to the patient’s true beliefs and feelings, perhaps they challenge the patient’s delusions because delusions are more apt to be integrated into a system of confirming beliefs. The struggle to ascertain meaning from an unintegrated collection of obsessive and delusional thoughts could lead to further decompensation. As such, obsessions would wane when delusional symptoms predominate and

insight decreases. This would make it harder to integrate the obsessional beliefs which are then rejected in favor of the overarching psychotic belief system in the most severe cases.

When OCD is the predominant and unremitting disorder, comorbid schizophrenia is less likely. “Patients suffering from primary OCD carry a relatively low risk (1.7%) to develop comorbid psychotic symptoms” (Zink, 2014, p. 3). Perhaps maintaining some insight in OCD is interpreted as diagnostic for that disorder versus waning insight recognized in schizophrenia, but underneath are the same dysfunctional mental processes.

However, the converse that when schizophrenia is the predominant disorder, OCD is less likely is not true. In a recent meta-analysis, roughly a third of schizophrenia patients display prominent OCS and between 12% and 15% meet full criteria for OCD (Hwang et al., 2009; S.-W. Kim et al., 2013; Zink, 2014). This is roughly six times the prevalence of OCD in the general population (Swets et al., 2014). In a large meta-analysis of 52 studies, Achim et al. (2011) reported comorbidity with OCD among those with schizophrenia for OCD was 12.1%, and exceeded only by PTSD (12.4%) and social anxiety disorder (14.9%).

However, other comorbid conditions such as anxiety and depression can also intensify as the prodromal stage of schizophrenia builds toward frank psychosis. They are also increased risk factors for first-episode psychosis (Wilson et al., 2020). Symptoms of psychosis can also manifest as severity of depression and anxiety increase. “With psychotic features” is a diagnostic specifier for Major Depressive Disorder at its most impairing (American Psychiatric Association, 2017, 2022). As in OCD, insight with depression is on a continuum decreasing with severity.

A cross-sectional study of 86 outpatients at “the largest psychiatric center in Tokyo,” compared two groups: OCD with comorbid psychotic disorders (PD), which included not just those with low/no insight, but “other symptoms related to PD, including delusions other than

those only related to poor insight, hallucinations, thought disorders, and negative symptoms,” (Okamura et al., 2022, p. 6) and a control group of 58 OCD patients without psychotic disorder. In the OCD-PD group, OCD preceded PD in 22 of 28 cases, two had simultaneous onset of both disorders, and two developed schizophrenia before OCD.

In the 22 patients in whom ... OCD preceded schizophrenia, the mean age of OCD onset was 15.0 years. The mean delay of schizophrenia onset after OCD was 9.7 years, and the mean onset age of schizophrenia was 24.7 years. (Okamura et al., 2022, p. 6)

In OCD patients without other PD symptoms as in the Okamura et al. (2022) study, the DSM-5 and DSM-5-TR added an insight specifier for OCD along a spectrum from “good or fair” to “poor” or “absent insight/delusional beliefs” (American Psychiatric Association, 2017, 2022, p. 266). “OCD with poor insight can be seen in 21% to 36% of patients while cases of OCD with delusion can be seen in 4% of the patients” (Güvenek-Cokol, 2023, p. 199). Okasha et al. similarly noted a “surprising finding” in their 1994 study that “none of the patients had excellent insight.”

Insight was mildly affected in 26%, moderately affected in 50%, and severely affected in 14.4% of cases. This contrasts with the historically accepted characteristics of OCD, i.e., patients recognize the absurdity of their obsession and compulsion. (Okasha et al., 1994, p. 195)

When people with OCD present with low insight, it is often not a stable trait of the condition, but waxes and wanes along with the course of the illness. “Patients who are highly fused with their obsessions and compulsions may present with poor insight, and at times may have a delusional level of conviction” (Güvenek-Cokol, 2023, p. 199). A large prospective study of OCD patients that excluded patients with history of psychosis found that some “felt their

beliefs were sensible” and “9% defended their beliefs as rational in the face of contrary evidence” (Lelliott et al., 1988, p. 701).

One-third perceived their obsessive thoughts as rational and felt that their rituals warded off some unwanted or feared event (the content of their obsessions). The more bizarre the obsessive belief the more strongly it was defended and 12% of cases made no attempt to resist the urge to ritualize. (Lelliott et al., 1988, p. 697)

After one year of ERP treatment, insight generally improved along with a reduction in symptoms. However, degree of insight did not correlate to outcome of treatment. “Pre-treatment bizarreness and fixity of belief and resistance to and controllability of compulsive urges are not related to duration of illness, mood, or compliance with or response to treatment” (Lelliott et al., 1988, p. 702). Insight may be a feature of the disease that exhibits more variability between patients than by the severity of symptoms or course of the disease among individual patients.

Within this group of patients with OCD there is a spectrum from those who freely admit the senselessness of their beliefs to those who firmly defend them, and another spectrum from those who struggle constantly to resist their compulsive urges to those who freely submit and perform their rituals. (Lelliott et al., 1988, p. 702)

Several key features distinguish OCD from schizophrenia. In OCD, even with low or absent insight, people with OCD have a sense of ownership of their thoughts and understand that their unacceptable thoughts are self-generated. In a psychotic state, people with schizophrenia believe their delusions are inserted from an external entity. Unacceptable thoughts are questioned and resisted to some degree with OCD even when they progress to delusions (Gruenewald-Cokol, 2023; Kozak & Foa, 1994).

In schizophrenia, the patient maintains strong conviction that their delusions are true regardless of their ego-syntonic or ego-dystonic nature and are integrated into the patient's overall system of beliefs. The person with schizophrenia typically can explain in great detail the whys and wherefores of their delusional beliefs and have often devised some systematization or internal organization of related content to explain their symptoms. However, in OCD the delusions are not usually integrated with their other beliefs and they lack insight into how they might be integrated logically and consistent, which might be a source of additional distress (Guvenek-Cokol, 2023, p. 201).

Comorbid Schizophrenia and Scrupulosity

Okamura et al. (2022) analyzed the content of obsessions for the two groups of OCD-PD and OCD without PD and found sexual and religious obsessions presented together (7.2%) nearly at the same frequency as the lowest type, hoarding (7.1%). Interestingly, about half the types were lower in OCD-PD (Aggression: OCD-PD 5% lower; Symmetry: 52% lower; Somatic: 52% lower; Hoarding: 37% lower; and Miscellaneous: 12% lower). The other types were all higher in the OCD-PD group (Contamination: 17% higher; Sexual: 5% higher; and Religious: 211% higher). However, a distinctly different trend was seen for religious obsessions, which was 1.7% in the non-PD group and 3.6% in the OCD-PD group, a 211% increase. This is quite interesting as the common types of OCD obsessions that are less scrupulosity-oriented are all more prominent in the less severely affected non-psychotic OCD patients. And the categories usually included in the taboo thoughts domain, sexual and religious obsessions, clearly indicate substantially more prevalence in the more severe patients with comorbid OCD and psychotic disorders.

The Aggression category barely met statistical significance for being higher among non-PD patients, and most fits the Harm obsession category in other research, which is sometimes included within scrupulosity, as well (Okamura et al., 2022). This seems to be consistent with an inherently weaker content relationship to scrupulosity than sexual and religious obsessions. The implications are clear, though, that scrupulosity obsessions are an indication of a more severe type of OCD exceeding lack of insight because it represents frank psychotic symptoms beyond mere obsessions.

While this is consistent with previous research, this a huge increase. Further research on prevalence of scrupulosity obsessions, including sub-clinical OCD symptoms, is needed to better understand the etiological factors that make it so. Little has been written on the crossover from scrupulosity obsessions to delusional, frank psychosis. Differential diagnosis is potentially fraught with sensitive implications due to different religious beliefs among religions and differentiating them from cultural norms (Himle et al., 2011). Nevertheless, some guidelines for differentiation outside the scope of religious knowledge can be helpful for discriminating psychosis within a context of religious belief.

As the religious OCD patient moves closer towards the “delusional” end of the spectrum, he is also closer to giving up his religious values altogether and is very much in danger of “throwing the baby out with the bathwater.” . . . This “obsessive” doubt about religious commitment as a whole clearly places the “delusional” religious OCD patient within the boundaries of OCD rather than schizophrenia. (Hoffnung et al., 1989, p. 143)

However, a clear, compelling diagnostic cutoff is blurred when all this research is taken as a whole. It could very well be that, once again, a better description of these phenomenon is as a spectrum from sub-clinical obsessive compulsive symptoms to non-psychotic OCD to

obsessional psychosis. Scrupulosity appears to manifest most clearly as obsessions cross over to psychosis. Considering the implications for scrupulosity, in which religious beliefs present a ready-made system upon which to force an integration of obsessional beliefs, it may make it that much more difficult to reconcile. Certainly, the typically more severe presentation of OCD in patients with scrupulosity than other types of obsessions would seem to confirm this hypothesis, for which further research is needed.

An Emerging Synthesis: Schizo-Obsessive Disorder

A proposed combination of the two disorders into “Schizo-Obsessive Disorder” has been postulated as a distinct phenotype reminiscent of the blend of schizophrenia and bipolar disorder in Schizoaffective Disorder. Based on “shared neurobiological characteristics” (Külz & Voderholzer, 2015, p. 22), further evidence for a blend of symptoms as a distinct phenotype is the efficacy of psychopharmacological interventions for both disorders that are effective in controlling symptoms of Schizo-Obsessive Disorder (Martin, 2012). “There is some evidence pointing towards beneficial effect of certain antipsychotics, antidepressants and cognitive behaviour therapy” (Grover et al., 2019, p. 63).

Due to the too often comorbid presentation of schizophrenia with obsessive–compulsive symptoms or clinical OCD, the order of onset is often unclear and difficult to discern which disorder’s phenotypic symptoms are the more predominant presentation (Grover et al., 2019). In the current nosology of mental disorders in DSM-5-TR, there is an implicit decision in which the predominant disorder is the one that is considered more serious, or more enduring and impairing if the “less serious” disorder develops first and when it progresses the symptoms of the “more serious” disorder manifest. Such is the case for Major Depressive Disorder, severe, with

psychotic features. As depressive symptoms abate, psychosis usually disappears only to return if the depression intensifies again (Grover et al., 2019).

Where scrupulosity fits within a schizo-obsessive spectrum is also unclear because it depends on the aforesaid factors such as insight, ego-dystonicity, and cohesion of obsessions to belief structure. If scrupulosity is predominant over schizophrenia, one would expect the periods of relative clarity of thought and improved insight would be greater in duration than delusional episodes (Grover et al., 2019).

Separating episodes of delusion from clarity becomes highly problematic in the context of group practice of religion. But you only have to consider the history of religious cults to recognize that delusions can become a sort of “folie a deux” in circumstances during which religious fervor is easily spread, and then reinforced by group adherence to rigid religious rules that bear a marked resemblance to scrupulosity (Yazar et al., 2011). The psychology of cult behavior, as a sign of group belonging, reinforces special, often bizarre interpretation of scripture compared to normative practice of mainstream religion. This serves to maintain group cohesion in spite of the seeming irrationality of certain beliefs. Irrationality is possibly further disconfirmed by group belief in supernatural events and causation which can be strong in-group cultural norms. Normative group pressure would serve to confirm belief in delusions due to in-group reinforcement behavior stressing social unity, compliance, and consistency typically advocated by an authoritarian leader (Finkel & Baumeister, 2019).

When scrupulous religious practice is praised and positively reinforced, it is possible that obsessive-compulsive behavior could become the group norm. This serves to bolster group identity and increase the pressure on vulnerable individuals to conform due to fear of group rejection if they do not conform to certain beliefs and behaviors. Thus, a normative group

process could establish ego-syntonic scrupulous attitudes and behavior. The difficulty of differentiating individual delusional belief from group norm religious beliefs puts a burden on mental health providers to identify where such a line is crossed. With non-religious/non-moral obsessions, an aberration of the cultural norm is a clear indication that delusional content is present and is an indicator of OCD when it is presents so contrary to the patient's otherwise norm-compliant beliefs and behaviors (Osborn, 2008). With scrupulosity, this higher standard of proof is another barrier to appropriate care for affected individuals.

CHAPTER IV: SCRUPULOSITY—A PHENOTYPE OF OCD

Features of Scrupulosity

Common features of OCD include obsessional thought about various domains of human activity such as cleanliness of one's body and living space, a strong preference for orderly and symmetrical presentation of physical items, over-concern for potential harm and preventing it, and other more esoteric or idiosyncratic personal concerns. An intrusive, obsessional thought is followed by a compulsive action to fix, clean, rearrange, or in some other way negate the emotional distress of the negative obsession (American Psychiatric Association, 2022).

Scrupulosity is a presentation of OCD “primarily characterized by pathological guilt or obsession associated with moral or religious observance” (C. H. Miller & Hedges, 2008, p. 1042). It varies as to the detectable presence of compulsions due to the internalizing mentalization of repression of abhorrent thoughts (C. H. Miller & Hedges, 2008). While generally agreed to be a subtype of OCD, some researchers have questioned whether scrupulosity rightfully belongs to a different taxonomy within the obsessive–compulsive spectrum of disorders based on analysis of its heterogeneity of clinical presentation, greater severity of symptoms, and resistance to treatment (Baer, 1994; de Mathis et al., 2006; Doron, Kyrios, & Moulding, 2007; C. H. Miller & Hedges, 2008; Radomsky & Taylor, 2005).

When people experience obsessions of a moral or religious nature, the thought is much more difficult to negate as direct actions rarely can allay their obsessional fears (Gonsalvez et al., 2010). Within the domain of religion, there will always be an element of uncertainty that necessitates faith, like an “itch that can never be scratched” for OCD sufferers. Their desire for reassurance in matters of faith goes beyond general questions about religious doctrine that

concern all serious believers. It typically encompasses fear of eternal damnation or failure to achieve certainty of the assurance of eternal life, such as reincarnation to a higher life form.

The doubt of scrupulosity can never be wholly satisfied due to perceiving the uncertainty of their religious questions to be a direct personal threat of unacceptable consequences. However, the very nature of this existential question can be neither confirmed nor denied until one's death. Because they feel their ultimate destiny remains uncertain, such a consequence is therefore catastrophic, permanent, and irreparable. Such heightened personal salience of a dreaded consequence is a primary driver of obsessional thoughts (Osborn, 2008).

Nosology of Scrupulosity

In the development of previous versions of the *Diagnostic and Statistical Manual of Mental Disorders*, scrupulosity was subsumed under OCD within the spectrum of anxiety disorders and characterized as a presentation of religious focus of intrusive thoughts (American Psychiatric Association, 1994). Conceptually, it has been considered similar in nature to ego-dystonic, intrusive, obsessional thoughts of a sexual nature. It is interesting to note that during the development of the DSM-5 the Obsessive Compulsive Cognitions Working Group [OCCWG] report defined OCD as a separate category alongside, rather than subsumed by, the anxiety disorder spectrum as in DSM-IV (American Psychiatric Association, 2022; Crino et al., 2005).

The OCCWG declined to include scrupulosity, or even mention religious and moral concerns, among the 19 domains of content they derived from validated measures of OCD (Leckman et al., 2010; Phillips et al., 2010). Instead, the working group's recommendations included adding "praying" among a list of other typical OCD compulsions (Leckman et al., 2010, p. 509). This failure to give recognition to scrupulosity as a content domain of note has had

the predictable consequence of not encouraging further research into its cause, presentation, and treatment.

Discussion of the relationship between OCD and Obsessive–compulsive Personality Disorder (OCPD) was given place in this new taxonomy, though the nature of the relationship between these subtypes was determined to be the ego-syntonic feature of OCPD differentiating it from the typically ego-dystonic characteristic of OCD. However, this seems to be a distinction not backed by empirical data. Clinical observations have noted that how obsessive–compulsive symptoms affect one’s self esteem and identity can vary greatly over the course of treatment and is not always a reliable marker of OCPD vs OCD. It seems to be more indicative of severity of impairment in self functioning (Lochner et al., 2011).

In either disorder, scrupulosity was not considered to be a distinct subtype, however, its inclusion was inferred by mention of “hypermorality” and “scrupulosity” in the context of typical abnormal cognitions of the less-impairing condition of OCPD (American Psychiatric Association, 2022, p. 264; K. A. Phillips et al., 2010, p. 541).

Mention of scrupulosity is absent again in DSM-5-TR but inferred by inclusion of “religious obsessions” among categorizations of OCD themes (American Psychiatric Association, 2017, 2022).

While the specific content of obsessions and compulsions varies among individuals, certain symptom dimensions are common in OCD, including those of cleaning (contamination obsessions and cleaning compulsions); symmetry (symmetry obsessions and repeating, ordering and counting compulsions); forbidden or taboo thoughts (e.g., aggressive, sexual or religious obsessions and related compulsions); and harm (e.g., fears

of harm to self or others and related checking compulsions). (American Psychiatric Association, 2022)

Evidence for Scrupulosity as a Distinct Phenotype of OCD

In earlier research, Pinto et al. (2008) determined a different nosology than that used in DSM-5/DSM-5-TR using factor analysis of OCD symptoms at the item level of self-report measures rather than lumping them in commonly accepted categories. The gold standard of clinical tools for assessing OCD, the Yale-Brown Obsessive Compulsive Scale (Y-BOCS), derived symptom categories from expert clinical recommendations of observed symptoms rather than classifying them from data empirically derived from the patients themselves (Goodman et al., 1989). Pinto et al. (2008) recommended a structural model of five symptom domains in OCD that together accounted for 67% of the variance among the data: taboo thoughts (22.4% of total variance), symmetry/ordering (11.6%), hoarding (6.9%), contamination/cleaning (6.6%), and doubt/checking (4.9%; Pinto et al, 2008, p. 89). Pinto et al.'s (2008) study was designed with some changes to procedures to improve on a similar study using principal components analysis. The previous study also found aggressive, religious, and sexual obsessions to represent 19.8% of total variance (Denys et al., 2004). These studies build coherence of an argument for distinct phenotypes within OCD that strongly elicit scrupulosity from the taboo thoughts subtype.

Whereas the Y-BOCS minimizes use of thematic organization, in real experience, OCD patients complain of their intrusive thoughts being of one predominant type. "Research suggests that 20% to 30% of OCD patients report that "forbidden" obsessions ... are their primary concern" (Milliner-Oar et al., 2016, p. 3).

Unacceptable/taboo thoughts are distinctly ego-dystonic with a repugnant quality that tends not to be so prominent in other OCD symptoms. As their name suggests, the content of these obsessions typically involves unacceptable, taboo or forbidden themes such as stabbing a relative, incest or blasphemy. (Brakoulias et al., 2013, p. 750)

People with mainly scrupulous concerns who perform compulsive prayer would qualify for both the taboo thoughts and doubt/checking subtypes. Concerns about “aggressive, sexual, and religious obsessions” (Pinto et al., 2008, p. 87) are contained under taboo thoughts, indicating that the authors considered these content subtypes largely to be indicated clinically by obsessions with few or no overt compulsions. The test of whether this is a helpful phenotypic abstraction can be answered in whether it indicates what type of treatment is likely to bring relief for these symptoms (Reuman & Abramowitz, 2018). “Studies have associated unacceptable/taboo thoughts with mental rituals, reassurance seeking, avoidance, good insight, male gender, and being more likely to seek professional help” (Brakoulias et al., 2013).

Further, the taboo thoughts category contains a broad range of obsessive content. The sizable degree of the total variance subsumed under this category, double the next most prevalent category, should be considered as an indication that it may contain multiple subgroups. Perhaps taboo thoughts is divisible on the content domains of sexual and religious versus aggressive themes. Obsessions about violence often are reported by OCD patients with harm avoidance obsessions and compulsions. “Aggressive obsessions are both highly prevalent and disturbing for sufferers. Estimates suggest approximately 45% to 50% of adult OCD sufferers and 30% to 70% of children and adolescents experience aggressive obsessions” (Milliner-Oar et al., 2016, p. 3).

Both children and adults with OCD commonly report experiencing aggressive obsessions. Aggressive obsessions include unwanted thoughts, images or impulses

related to harming oneself or defenseless others (e.g., Stabbing oneself or a family member, smothering a baby or beloved pet, poisoning a family member and throwing themselves off a balcony). (Milliner-Oar et al., 2016, p. 2)

Harm avoidance behaviors related to violent or aggressive obsessions are common and shown to be directly causal of increased OCD behaviors (Brakoulias et al., 2017; Milliner-Oar et al., 2016).

Aggressive obsessions are typically associated with significant avoidance of triggers of intrusive thoughts, such as avoiding using knives or driving, spending time with loved ones, or even certain colours (black because it is associated with death), places (e.g., hotels with balconies, or cemeteries), or numbers (e.g., number 6). (Milliner-Oar et al., 2016, p. 2)

When personal responsibility was manipulated as an independent variable in one research study, “subjective OCD-like experiences and checking behaviors were higher in OCD patients in the high responsibility (HiRes) condition than in all other groups...confirm(ing) the hypothesis that responsibility plays a causal role in OCD” (Arntz et al., 2007, p. 425). Further, aggressive or violent themes are fully mediated by hostility and associated with increasing impulsivity and severity of OCD (Brakoulias et al., 2017).

Hostility refers to thoughts, feelings, or actions that are characteristic of the negative affect state of anger and this includes aggression, irritability, rage and resentment.

Although it is possible that repetitive, distressing unacceptable/taboo thoughts may make the person more hostile, hostility may also predispose to the development of unacceptable/taboo thoughts and perhaps to substance abuse too. (Brakoulias et al., 2013, p. 753)

Aggressive obsessions have been classified differently than sexual/religious obsessions in a range of other studies (Denys et al., 2004; Mataix-Cols et al., 2013). “Notably, across research groups aggressive or harm related OCD symptoms have been conceptualized differently” (Milliner-Oar et al., 2016, p. 3).

It is currently unclear whether sexual/religious obsessions and aggressive/checking symptoms load onto a single factor (e.g., repugnant obsessions, “forbidden thoughts” “taboo thoughts”) or two separate factors (harming and “unacceptable thoughts”). Similar symptom dimensions have been found in children, with the exception of checking which, in adult studies, tends to load on the aggressive dimension however in children on the symmetry OCD subtype. (Milliner-Oar et al., 2016, p. 3)

This might be due to the increased responsibility adults experience more than children, in general. Adults may feel responsible for preventing harm, while children are prompted to check for it. Further research is needed to determine if the taboo thoughts subtype differs in other ways among the sexual, religious, and aggressive obsessions, such as age demographics, course of disease progression, and treatment and resolution. The “forbidden thoughts” subtype of OCD may be associated with a unique population demographic and pattern of comorbidities, as much research suggests (Milliner-Oar et al., 2016).

In adult samples, a number of studies have found that the aggressive, sexual and religious, somatic obsessions and checking compulsions subtype is more likely associated with being male, having early onset OCD (<16yrs) and comorbid anxiety (in particular social phobia), depression, alcohol and substance use disorders and body dysmorphic disorder. (Milliner-Oar et al., 2016, p. 3)

Much further research is needed to continue to refine this evolving definition of scrupulosity that would help to spur research and development of clinical treatments.

Prevalence of Scrupulosity in Western Culture

Scrupulosity is the fifth most common primary obsessional theme among those with OCD (Foa, Kozak, et al., 1995). Most OCD sufferers report they experience multiple obsessions. Up to one-third of people with OCD have at least one moral or religious theme among their obsessions (Mataix-Cols et al., 2002). Scrupulosity presents a unique challenge in that while it has many common features with other subtypes of OCD for which ERP has proven efficacious, it is far less effective in treating moral and religious obsessions and compulsions for a variety of reasons peculiar to its presentation and sensitive content .

Prevalence and Presentation in Different Cultures and Religions

Around the world, OCD prevalence overall is reported fairly consistently measured at 2.0–2.5% and has remained relatively stable across decades of study (Himle et al., 2011; Tek & Ulug, 2001, p. 100; Weissman et al., 1994). Both OCD and its scrupulosity subtype are found throughout different sociocultural contexts worldwide. It occurs among adherents of all major world religions (Himle et al., 2011; Okasha et al., 1994).

Despite its widespread presence, the prevalence of religious and moral obsessions varies widely across different cultures and religions due to contextual differences related to both the relative cultural focus on the importance of religion and specific religious beliefs and practices, as seen in the range of reported prevalence among the following studies worldwide.

Patients with religious obsessions may be over-represented in clinical populations of Muslim and Jewish Middle Eastern cultures, as compared with clinical populations from the West, India and the Far East. (Tek & Ulug, 2001, p. 100)

Prevalence of scrupulosity within clinical OCD populations globally varies widely based on the cultural norms of conservative versus liberal sects of different religions (Eğrilmez et al., 1997). Scrupulosity varies from lows of 5% in England, 7% in Singapore, 10% in the United States, and 11% both in Turkey (Eğrilmez et al., 1997) and India (Akhtar et al., 1975), all more liberally religious and/or more secular countries. Much higher prevalence is seen in conservative, highly religious countries, such as 40% in Bahrain (Shooka et al., 1998), and 50% in both Israel (D. Greenberg, 1984) and Saudi Arabia (Mahgoub & Abdel-Hafeiz, 1991) and as high as 60% in Egypt (Okasha et al., 1994).

The United States, split culturally into both conservative/religious and liberal/secular values, was found in other studies of clinical populations from the same time period found to have a higher prevalence of religious obsessions between 27% (Mataix-Cols et al., 2000) to 33% (Steketee et al., 1991). These differences may reflect influences of geographical location, religion, and culture that are reflected in epidemiological prevalence regionally due to historical cultural patterns, rather than a homogeneous national norm reported as a single statistic. For example, scrupulosity is reportedly higher in the Bible Belt regions of the South than other less-religious regions of the United States (Abramowitz et al., 2002).

Similar regional differences were also found in Tek and Ulug's 2001 study that showed regional differences of prevalence of 5–11% on the more secular west coast of Turkey to 34% in eastern Turkey where more traditional Islamic culture is the norm. The prevalence was 48% in Ankara, Turkey's capital located in the central region. The study was conducted at the Hacettepe University Hospital the location of treatment for the most

complex and treatment-resistant patients. This further reflects the trend among many studies that the most severely affected OCD patients have the highest prevalence of scrupulosity (Tek & Ulug, 2001).

In a cross-cultural study of the prevalence and disturbance experienced from unwanted mental intrusions (UMIs), Pascual-Vera et al. (2022) found that “the escalation from common UMIs to clinically relevant symptoms depends on the maladaptive consequences (i.e., emotions, appraisals, and control strategies) of experiencing UMIs” (p. 1). The commonality of results “suggest that, although cognitive models of disorders in which UMIs play a substantive role can be relatively independent of the socio-cultural background, identifying cultural factors (e.g., religious- and migration-related), might be important in implementing more accurate assessments and treatments that consider these factors” (p. 8). Frequency of UMIs varied with Iran and Turkey reporting the highest, and Israel, Italy, and Argentina the lowest. Discomfort varied from Spain and Portugal reporting the highest degree, whereas Israel, Italy, and Argentina reported the lowest (Pascual-Vera et al., 2022).

The similarities found among participants from different countries might be influenced by different factors, such as sharing cultural and historical factors related to geographical location (i.e., Spain and Portugal), the rather strict observance of religion and values (Christian Catholicism in Spain and Portugal, and Islam in Iran and Turkey), and the role of migration movements of Italians and Israelis to Argentina, which were specially relevant at the end of the 19th century for Italians and across the first four decades of the 20th century for Jewish people. (Pascual-Vera et al., 2022, p. 8)

Within the umbrella of scrupulosity, the predominant types of symptoms vary with sociocultural differences due to the practices and religious beliefs of adherents, presenting

distinct challenges for a unified therapeutic protocol (Pascual-Vera et al., 2022). Within the major world religions, presentation of religious obsessions and compulsions of OCD sufferers varies greatly depending on the cultural norms of specific religious behaviors and how stringently they are prescribed with resultant impact on scrupulosity.

Christianity

In 2024, Christianity is still the most populous religion in the world with 2.6 billion out of a total world population of 8.1 billion, and predicted to grow to 3.3 billion by 2050 (Gordon Conwell Theological Seminary, n.d.). The spread of Christianity exceeds population growth around the world (Whitworth, 2024).

The (worldwide) population growth rate is currently trending at 0.87% growth but Christianity's growth rate is trending at 1.08%. In fact, the Christian population is projected to top 3 billion before 2050! Among these Christians, protestants, independents, evangelicals, and pentecostal/charismatics are the fastest-growing groups. (Whitworth, 2024)

Among the three main branches of Christianity, the Catholic Church accounts for approximately 50% of Christians, while the Eastern Orthodox Church is 12%, and all other Protestant churches are approximately 38%, including un-affiliated branches such as Mormons, Jehovah's Witnesses, and Christian Scientists (Pew Research Center, 2017).

In the United States, the majority of the population still identifies as Christian (G. A. Smith, 2021). Projections of a changing religious demographic also reflect a trend toward secularization of American culture.

In 2020, about 64% of Americans, including children, were Christian. People who are religiously unaffiliated, sometimes called religious "nones," accounted for 30% of the

U.S. population. Adherents of all other religions—including Jews, Muslims, Hindus and Buddhists—totaled about 6%. . . . Projections show Christians of all ages shrinking from 64% to between a little more than half (54%) and just above one-third (35%) of all Americans by 2070. Over that same period, “nones” would rise from the current 30% to somewhere between 34% and 52% of the U.S. population. (G. A. Smith, 2021, para. 3)

Protestants

Protestantism is a broad category that includes many denominations such as Methodists, Baptists, Presbyterians, Lutherans, and non-denominational, independent churches, as well as people unaffiliated with any organized denomination who describe themselves as “just Christian.” Protestants have declined 14% in 2016 to just 40% of the U.S. population in 2021. Evangelical Protestants account for 24% of U.S. adults and continue to outnumber at 60% those who do not identify as “born again or evangelical.” More Black Protestants (62%) identify as evangelical than White Protestants at 42% (G. A. Smith, 2021).

Protestantism doctrine teaches that morally thoughts and actions are equivalent. “For example, to a Protestant, a married person who is thinking about having an affair has already done something wrong” (Cohen et al., 2003, p. 287). Research suggests that most Protestants endorse this belief system (Abramowitz et al., 2004).

Highly religious Protestants, not surprisingly, endorsed “more severe obsessional symptoms compared to both the moderately religious and the atheist/agnostic groups” and “endorsed more strongly held beliefs about the importance, need to control, and responsibility for their thoughts relative to nonbelievers. Moreover, the highly religious individuals reported significantly more intolerance of uncertainty than did nonbelievers” (Abramowitz et al., 2004, p. 74).

Among the many denominations of Christianity in the Protestant tradition, fundamentalist sects have long been thought to be more likely to facilitate scrupulosity due to certain beliefs and rigid adherence to doctrine (Abramowitz et al., 2004).

From the writings of Freud (1907) to recent times, there has been speculation that individuals from conservative religious groups, such as fundamental Protestant Christians, may be inclined to develop obsessive-compulsive disorder (OCD) in general, and scrupulosity (OCD-S) in particular. (Witzig & Alec Pollard, 2013, p. 331)

Christian Fundamentalism spanning multiple separate denominations is a highly conservative and structured system of religious belief and practice. It has been theorized to contribute to rigidity in religious practice and intolerance of uncertainty among adherents (Abramowitz et al., 2004).

Five core beliefs central to Protestant Christian fundamentalism: (a) evangelism (i.e., reaching out to “unbelievers” in order to help them become converted); (b) premillennialism (i.e., beliefs about the imminent apocalyptic destruction of the world and the second coming of Christ); (c) separatism (i.e., lives of believers should be distinct from nonbelievers—“unspotted from the world”); (d) inerrancy of scripture (i.e., the Bible is considered to be the inspired word of God and is without error); and (e) Biblical literalism (i.e., the words of the Bible are to be followed to the letter and not to be ignored).” (Witzig & Alec Pollard, 2013, p. 332)

However, contrary to expectations, religious fundamentalism found in all major world religions has been found not to be significantly related to scrupulosity (Pirutinsky et al., 2009; Rosli et al., 2021; Rosmarin et al., 2010; Takriti & Ahmad, 2000; Witzig & Alec Pollard, 2013). “Strict adherence to traditional religious rituals does not typically interfere with normal

functioning and could protect against the excesses and dysfunction of OCD. Scrupulosity typically involves deviation from normal religious practice” (Witzig & Alec Pollard, 2013, p. 334). Further, there are significant mental health benefits to strongly held religious belief among Protestants (Abramowitz et al., 2004).

Many individuals derive substantial emotional benefits from their religious faith and from healthy forms of prayer. For example, we found that despite having more OCD-related cognitions and symptoms, the highly religious Protestant group was significantly less depressed than the other groups. Perhaps characteristics of being highly religious (e.g., social support, belief in the afterlife) serve as protection against depressive symptoms such as overly negative cognitions about the self, world, and future (hopelessness). (Witzig & Alec Pollard, 2013)

Protestantism has lower rates of OCD than Catholicism, likely due to the lesser emphasis on works-based valuation of personal religiosity and the emphasis on a personal relationship with God (Osborn, 2008). “If fundamentalism contains a balance of factors that either contribute to or protect against OCD, absence of a relationship between scrupulosity and religious fundamentalism might be expected.” (Witzig & Alec Pollard, 2013, p. 335). “Given that most highly religious Protestants do not have obsessional problems, it is likely that the relationship between Protestantism and OCD involves a complex interaction between characteristics of both the individual and their religion” (Abramowitz et al., 2004, p. 75).

Catholicism

As of December, 2021, there were 1.375 billion baptized Roman Catholics, representing 17.7% of the world’s population (Krapic, 2023). In the United States, “the Catholic share of the population, which had ticked downward between 2007 and 2014, has held relatively steady in

recent years. As of 2021, 21% of U.S. adults describe themselves as Catholic, identical to the Catholic share of the population in 2014 (G. A. Smith, 2021, para. 5).

American Catholicism has become more liberal both religiously and politically since reforms began in the 1960s. Currently, Catholics have the greatest amount of New Age beliefs in among organized religion with 70% endorsing at least one belief (Gecewicz, 2018).

The practice of Catholicism underwent a radical change in the wake of the Vatican II council in 1962–1965 (Teicher, 2012). This reflects a move toward ecumenism and secretism among disparate sources of religious belief.

Cultural changes in the aftermath of World War II spelled a need to reconsider church practices. These meetings did just that—16 documents in total came out of it, laying a foundation for the church as we know it today...a theme of the documents was reconciliation. In keeping, they allowed for Catholics to pray with other Christian denominations, encouraged friendship with other non-Christian faiths, and opened the door for languages besides Latin to be used during Mass. Other new positions concerned education, the media and divine revelation, and highlighted the church's willingness to operate in the contemporary realm. Today, the council is credited with essentially shaping the modern Catholic Church. (Teicher, 2012, para. 3–7)

The pre-Vatican II practices of Catholicism and subsequent changes are still having repercussions today that are seen in the symptoms of Catholics with scrupulosity.

There are several practices within the realm of Christianity, and more specifically Catholicism, that can support the development of scrupulosity. This does not necessarily render the Catholic Church and its teachers culpable for the presence of scrupulosity. The way in which doctrine and practice are taught has changed in significant ways in just the

last fifty years within Catholicism. Figures within and outside the Church would most likely agree that the Catholic Church has developed a more pastoral approach that is more attuned to developing whole, balanced and well-adjusted human beings. This is quite a contrast to the pre-Vatican II image of an authoritarian, doctrine-spouting Catholic hierarchy that frequently threatened the congregation with punishments of hell at the slightest misstep. While this is not necessarily the reality of what it was like to be a Catholic in the 1950's or 60's, both popular culture and children who were raised in that era often remember it this way. It is important to examine certain practices of the Catholic Church that may lead those with predisposing conditions or tendencies to develop undue guilt, anxiety or other maladaptive emotions. (Cobb, 2014, p. 42)

Post-Vatican II changes were made to the liturgy to make it easier to understand due by using vernacular language to encourage greater comprehension of the intent of the sacraments (Cobb, 2014). Some of the rites that can be easily misappropriated into scrupulosity include the *Confiteor* and the Sacrament of Confession.

The Confiteor. Catholic Confession has undergone both a liberalization and a restoration to its historical conservative liturgy in recent years (Cobb, 2014).

One of the prayers recited at the beginning of the Catholic mass and sometimes, in somewhat different terms, in Lutheran and Anglican ceremonies, (is) ... one particular element of a religious ceremony that could have disastrous effects on persons with predispositions towards scrupulosity. "Confiteor" is Latin for 'I confess'... translated 'I confess to almighty God, and to you, brothers, that I have sinned exceedingly in thought,

word, deed, and omission: through my fault, through my fault, through my most grievous fault.’ (Cobb, 2014, pp. 42-43)

The repetition of the last phrase was eliminated formally from the Confiteor in 1970. However, as part of a movement to ensure more accurate translation of the original liturgical texts under Pope John Paul II, the repetitions were reinstated (Cobb, 2014, p. 42).

I confess to almighty God and to you, my brothers and sisters, that I have greatly sinned in my thoughts and in my words, in what I have done, and in what I have failed to do; through my fault, through my fault, through my most grievous fault; therefore I ask blessed Mary ever-Virgin, all the Angels and Saints, and you, my brothers and sisters, to pray for me to the Lord our God. (*Confiteor*, as cited in Cobb, 2014, p. 44)

Cobb (2014) notes that it is significant that this repetition is now accompanied by ritualized striking of one’s chest while saying the phrase repetitively. She reports that the justification the church has provided is that “it is good to acknowledge our sins” (Cobb, 2014, p. 45), but that this practice could evoke excessive feelings of guilt and shame (p. 46).

Not only has the repetition of one’s fault returned to being repeated three times, but also beating of one’s breast during the three recitations of “through my fault” has returnedEven the pew cards indicate that one should perform this breast-beating action three times. This is a reaffirmation of a practice that dates back to the 5th century and the time of St. Augustine of Hippo. The action of beating on ones breast with a closed fist was never formally discarded but fell out of practice with the changes to the liturgy post-Vatican II. The United States Conference of Catholic Bishops defines this chest striking as a “symbolic tapping of the chest with a clenched fist over one’s heart, signifying remorse” and indicates that the inspiration for this gesture comes from the tax

collector in the Gospel of Luke who asked God for mercy while beating his breast.

(Cobb, 2014, p. 44)

Original Sin, Guilt, and Shame. A foundational doctrine of the theology of the Catholic Church is the belief that it was “humanity’s sinful nature that necessitated Jesus Christ, the central figure of Christianity, to be crucified” (Cobb, 2014, p. 45).

The original sin that Adam and Eve incurred in the Garden of Eden was passed on from generation to generation and is indelibly a part of every human being when he or she is conceived. Christian tradition holds that each person carries the stain of original sin until he or she is baptized. . . .The reality of these teachings is that many Catholics are inundated from a young age with messages about how at the core of their being they are bad.... For many Christians, awareness of their sinful nature causes them to feel shame and guilt. (Cobb, 2014, pp. 45–46)

Cobb (2014) notes that guilt and shame lead to feelings of worthlessness and low self-esteem, with women expressing it more as depression and men as rage.

Confession. The Catholic Sacrament of Penance and Reconciliation, better known as “Confession,” is meant to purge oneself from the guilt of sin and restore the purity of the relationship with God (Cobb, 2014, pp. 49–50). Sica et al. (2002b) stated, “In many religions the blasphemous thoughts are warded off through repeated prayers or alleviating the guilt about committing a sin through confession” (p. 815).

Theologically, sin is a break in one’s relationship with God. It may or may not be accompanied by feelings of guilt (regarding a particular action or inaction) or shame (regarding the core of one’s person). For Catholics, this relationship can be properly repaired only through Confession. . . .It is this sacrament, designed to take away sin and

alleviate related feelings of guilt and shame, which can trigger OCD-prone Catholics to develop scrupulosity. (Cobb, 2014, pp. 49–50)

Cobb (2014) notes that this practice is theologically justified by many Catholics using the verses: “Whatever you loose on earth shall be loosed in heaven” (Matt. 16:9) and “If you forgive the sins of any, they are forgiven; if you retain the sins of any, they are retained” (John 20:23); (Cobb, 2014, p. 57). Taken out of context, and interpreted such that repeating the words will enact agency on God to do what one asks, or rather, commands, reinforces magical thinking instead of strengthening faith, thereby reinforcing the cycle of OCD expressed in scrupulosity (Cobb, 2014).

Doctrine that Pertains to Scrupulosity. One’s religious affiliation and experience can influence the core fears and corresponding obsessions which develop in people with OCD (Purdon & Clark, 1999). Positive beliefs about God have been significantly related to better mental health outcomes, and conversely negative beliefs about God are generally associated with more distress.” (Pirutinsky et al., 2017, p. 305). Several studies have suggested that clinically insignificant scrupulosity are related to certain conceptualizations of God as punitive (Bradshaw et al., 2010; Cassibba et al., 2008). “Insecure God images often develop head-to-head with God concepts in a believer’s emotional experience of God” (Counted, 2015, p. 1).

These negative conceptualizations of God are particularly related to religions that are particularly “works” or practice-oriented such that following religious rules and vague guidelines found in scripture are strongly emphasized (Cobb, 2014). Both overly proscribed rules such as the 613 laws of the Torah in Judaism as well as more vague aspirational constructs encourage scrupulosity in order to avoid divine retribution. Rather than whether the rule to follow is exacting or open to wide interpretation, it is the threat of extreme consequences for wrong

actions that seem to influence those with OCD toward scrupulosity (Leins & Williams, 2018, p. 114).

In light of the individual's rigid and scrupulously religious mental constructs, obsessions involving a perceived violation of a Scriptural mandate/teaching or immoral behavior are extremely distressing to Christian individuals with the disorder. (Leins & Williams, 2018, p. 114)

Scriptural Passages. While specific religious scriptures that could inspire related obsessions that are many, there are certain Bible passages that are well known to laity and acknowledged by Christian clergy of varying denominations to be the focus of many Christians' obsessions (Ciarrocchi, 1995, p. 52). These include:

- “Be ye therefore perfect, even as your Father which is in heaven is perfect.”
Matthew: 5:48
- “Wherefore, my beloved, as ye have always obeyed, not as in my presence only, but now much more in my absence, work out your own salvation with fear and trembling.” Philippians 2:12
- “Whosoever shall look on a woman to lust after her hath already committed adultery with her in his heart.” Matthew 5:28
- “For as a man thinketh in his heart, so is he.” Proverbs 23:7
- “But he that shall blaspheme against the Holy Ghost hath never forgiveness, but is in danger of eternal damnation.” Mark 3:29
- “Wherefore I say unto you, All manner of sin and blasphemy shall be forgiven unto men: but the blasphemy against the Holy Ghost shall not be forgiven unto men.”
Matthew 12: 3132

- “Lord, I believe; help thou my unbelief.” Mark 9:24
- “Be careful for nothing; but in every thing by prayer and supplication with thanksgiving let your requests be made known unto God. And the peace of God, which passeth all understanding, shall keep your hearts and minds through Christ Jesus.” Philippians 4: 6–7
- “Rejoice always, pray without ceasing, give thanks in all circumstances; for this is the will of God in Christ Jesus for you. Matthew 15:2128
- “Do not be anxious about anything, but in everything by prayer and supplication with thanksgiving let your requests be made known to God. And the peace of God, which surpasses all understanding, will guard your hearts and your minds in Christ Jesus.” Philippians 4:6–7 (*King James Bible*, 1769/2017, as cited in Ciarrocchi, 1995, p. 36; Jackson, n.d., p. 2; Mauzay et al., 2016, p. 840; Shapiro, 2023, p. 197)

Compulsive Prayer. In the only reported case study of a young woman being treated with ERP for compulsive prayer, Garcia (2008) notes that praying is likely the most common compulsion within scrupulosity. Garcia was a first-year clinical psychology doctoral student assigned “a 21-year-old undergraduate student who presented with depression and obsessive-compulsive disorder (OCD), in which the obsessions were religious in nature and the compulsions were rituals of the Catholic religious tradition, such as crossing and praying” (Garcia, 2008, p. 1).

Of his patient, Garcia remarked, “This type of “anxious praying” was particularly reminiscent of the reassurance-seeking that is so typical of OCD and seemed to take a perseverative rhythm” (p. 13). While eliminating harmful actions is the goal of ERP, it is

unethical to advise that the patient stop praying altogether (American Psychological Association, 2002). It is also unlikely to be successful.

Because praying is a practically universal feature of religion with the potential for fostering emotional well-being, not to mention an intrinsic human right according to values of Western society, the wholesale extinguishing of praying—as is the goal with most other targeted rituals in OCD treatment—simply was not an ethical nor desirable strategy in this case. (Garcia, 2008, p. 13)

Garcia noted that successful treatment depends on helping the person praying compulsively to differentiate the motivation of their prayers and to decrease the duration of prayer to an agreed upon length of time. Therapist and patient agreed to allow “healthy prayer” for 15 minutes before bedtime. Her compulsive prayer initiated throughout her day to ease her anxiety seemed to be motivated by “an element of avoidance” meant to forestall something bad happening. Healthy prayer was identified as “for worship, for divine inspiration, for spiritual fulfillment, for a closer relationship with God, to give thanks, to gain wisdom, to express frustration or pain, or to seek guidance” (Garcia, 2008, p. 14).

The qualities of the two types were by no means completely distinct. . . .The task then was to separate those instances in which she was mostly praying for worship (“healthy” praying), and mostly praying to reduce anxiety (“unhealthy” praying). (Garcia, 2008, p. 14)

Complexities of Treatment. Over time, this patient reduced her praying to agreed upon constraints. However, this by no means marked successful resolution to her scrupulosity. Garcia reported his intuition was alerted when she seemed unusually compliant.

My first inkling of this was very subtle, which was initially fed by nuances in her overall demeanor and non-verbal behaviors. When instructed to perform tasks, she sat intensely alert in a manner that demonstrated a willingness to comply with treatment with a fervor that seemed somewhat overstated... First, the desire to abide by rules gave her an incentive to do homework exercises as well as to participate actively in session. (Garcia, 2008, p. 14)

Compliance is the main determinant of successful patient outcome with ERP (Wheaton et al., 2016), however, Garcia's intuition proved useful in that it became another obstacle for recovery.

I eventually viewed her strong motivation to comply as a target of treatment at the same time that it was an asset. ...This took place in a notably meticulous fashion, as opposed to avoiding the work. Her compliance was also a target inasmuch as it stemmed from a rigid investment in being morally irreproachable. (Garcia, 2008, p. 14)

The patient's desire to appear to be an ideal patient served to counteract her self-appraisal as unworthy. "She put forth an inordinate amount of effort to be "a good girl" and also to be "perfect," but good by standards held by her alone" (Garcia, 2008, p. 15).

The determination of what we regarded as rigid came also from Bridget's own self assessment—upon exploration, she stated that her striving to be morally right in her actions and thoughts were the cause of stress and anxiety. Further, acting in an excessively acquiescent manner served as avoidance by Bridget—by doing so, she

avoided feeling as though she were morally vapid or evil, because moral uprightness for her involved abiding strictly by rules and principles and by perceived expectations of her. (Garcia, 2008, p. 14)

The patient's habitual cycle of using compulsions to alleviate stress was a stubborn coping mechanism that proved hard to break. Maladaptive coping mechanisms can become so ingrained and automatic that it could easily escape both the patient's and therapist's conscious observation (Garcia, 2008).

Another piece of information was the zeal with which she took to therapeutic tasks themselves. It seemed clear that she took to tasks in a way reminiscent of her more overt ritualizing. The manner was hurried and somewhat frantic, as someone with a feverish thirst rushing to alleviate her discomfort with a drink of water. As such, the style in which she performed the work itself became another point of intervention. (Garcia, 2008, p. 15)

She also used an avoidance coping mechanism to escape social discomfort that threatened her self esteem, as well. She reflected that acting especially compliant helped her to avoid risking perceived social censure, group rejection, and a hit to her self-image (Garcia, 2008).

With her friends she often took great pains to sublimate her thoughts, words and behavior to those that she felt were expected of her, sometimes clearly at the expense of her true feelings. (Garcia, 2008, p. 15)

Resolving the compulsive prayer issue uncovered layers of complex adaptation in the patient's behavior that took much time and patience to sort through, strategize, and address. Garcia saw the patient for over 2 ½ years for a total 79 sessions. Through successive phases of treatment, they addressed using CBT her many intrusive automatic self-condemning thoughts. Using cognitive restructuring, Garcia helped her reframe them to identify how these thoughts

mislead her down the slippery slope of OCD. Additional complex obstacles arose such as when she compulsively repeated the reframed the adaptive thoughts to calm herself. With great commitment to her treatment, Garcia (2008) was able to help her regain positive religious coping skills.

Christian Faith as a Source of Strength and Misapplication Causing Harm. The initial therapeutic goal of managing compulsive prayer had been complicated by Garcia's understanding of the role of praying as a fundamental source of strength and resilience. It was the tip of the spear in her treatment, but presented a distinct challenge upon which the therapeutic relationship and future success of treatment relied (Garcia, 2008).

The most striking ethical predicament of this case was the targeting of ritual behaviors that are part of a religious faith in which prescriptions exist for the performance of those very behaviors in a ritualistic fashion. Coming from a society and set of personal precepts that hold greatly the value of one's personal agency in religious expression, I had a natural unwillingness to immediately rush in and command Bridget to cease and desist all religious ritualizing in the interest of treatment, knocking the cross out of her hand with my CBT manual, as it were. (Garcia, 2008, p. 111)

Garcia recognized that his patient's compulsive prayer represented the tip of the iceberg of her pattern of OCD that had begun with the tragic death of her father during a key period of her adolescent development of identity. Her maladaptive religious coping had emerged upon a backdrop of existential fear of death that also manifested in compulsive acts meant to prevent the death of other loved ones (Garcia, 2008).

Garcia addressed with great sensitivity both the positive and harmful effects of religious belief upon which her OCD manifested. His clinical intuition was based partly on his personal

understanding of religion as a powerful psychological influence. “The presence of religious faith is associated with greater hope, increased sense of meaning in life, higher self-esteem, optimism and life satisfaction” (Dein, 2018, p. 127). The evidence is mounting. “To date, several thousand studies demonstrate positive associations between the two. Results indicate that those who are more religious generally fare better in terms of mental health” (Dein, 2018, p. 127).

However, psychiatrists and psychologists persevere the historic lack of rapprochement between religion and mental health. “There is, moreover, evidence that psychiatrists tend to ignore religion; it is rarely part of standard psychiatric assessment and treatment” (Dein, 2018, p. 127). This avoidance of integration of faith in psychological and psychiatric practice continues to occlude its impact, both positive and negative. While evidence of religion and faith as a positive, protective factor is clear, guidance for specific interventions to address religious practice is sorely lacking. The fact is, “there is a dearth of research on ritual, prayer and other aspects of religious experience” (Dein, 2018, p. 127).

Garcia (2008) admits his struggle to extinguish harmful behaviors was complicated by the realization that her future well-being depended upon her discovering in therapy how to access the positive effects of religious belief. Hence, the therapeutic task was not so simple as to eliminate compulsive prayer.

Further, doing so would seem to forego, or at least jeopardize on some level, the elements of religion constructive to emotional well-being, such as: social connectedness and support, a framework of meaning to life, a set of guiding moral principles, hopefulness, structure, and the uplifting experience of spiritual immersion. On the other hand, I did not want to allow pathological ritualizing the opportunity to camouflage itself against the background of religion and by doing so maintain suffering in my patient, since her

well-being was my primary moral obligation, and since the mission of my work the alleviation of her suffering. (Garcia, 2008, p. 30)

This case study well illustrates the challenges in successful treatment of scrupulosity, as well as the complex implications of compulsive prayer as the most common presenting problem. However, the detailed explication of this patient's successful therapeutic process offers hope that even such complex cases can reach successful conclusions that stabilize as well as enrich the psychological health of patients with scrupulosity.

Judaism

Compared to Christianity, and Protestantism in particular, "Jewish tradition is focused much more on religious practice than on religious belief" (Cohen et al., 2003, p. 287). Unlike Christianity or Islam, Jewish identity was determined traditionally by matrilineal descent, not by personally held religious beliefs (Cohen et al., 2003; Zohar et al., 2005). Jewish descent and belonging in a faith community defined by tradition and shared values has historically contributed to the study of Jewish identity in America. Jewish identity was based largely on ethnicity and processes of cultural assimilation comparable to other European immigrant ethnic groups from the 1880s to 1920s. "The Jewish community, which over the past two centuries, has divided into several factions or denominations ... differ substantially in both religious doctrine and cultural practice" (Rosmarin et al., 2010, p. 932).

In the current day, denominations range from the traditional Orthodox (Hassidic, yeshiva Orthodox, and Modern Orthodox) to more secular groups (most commonly, Conservative, reform, and unaffiliated Jews). (Rosmarin et al., 2010, p. 932)

Between Orthodox and non-Orthodox Jews there is a wide range of religious beliefs and practices. Recognition of Hebrew scripture as authoritative is conditional on a liberal or

conservative belief of divine inspiration (Rosmarin et al., 2010). As in other religions, people with OCD with more conservative views on religion tend to exhibit greater scrupulosity among their symptoms.

Orthodox Judaism is founded on the premise that the Torah (Hebrew Bible) and its commandments, as well as the extensive interpretation of those precepts by the Talmud, are Divinely originated and are hence obligatory (Schnall, 2006). By contrast, Conservative and reform Judaism assert that Talmudic understanding of the commandments is not legally binding and that the Torah is not immutable. (Rosmarin et al., 2010, p. 932)

Contrasted with the more traditional, conservative sects, the modernized Reform sect of Judaism takes a liberal interpretation of Torah and rabbinic tradition (Cohen et al., 2003).

At the time of its founding, Reform Judaism saw social activism as the most central part of Judaism and considered the Torah's ritual laws outdated and no longer binding though in recent years Reform Judaism has begun to expect more adherence to Jewish ritual.

Conservative Judaism considers itself bound by almost all Torah rituals in addition to the ethics but also allows innovations in Jewish law, such as the inclusion of women in many aspects of ritual life that Orthodox Judaism considers open only to men. (Cohen et al., 2003, p. 293)

Unlike within Christianity and Islam, Judaism does not make an issue of Thought-Action Fusion because not acting on one's sinful thoughts is considered, correctly, not to have sinned (Siev & Cohen, 2007).

Such theological differences affect the attention that Jews and Protestants pay to mental states. Protestants consider a person's thoughts and feelings to be much more morally

relevant than do Jews. For example, to a Protestant, a married person who is thinking about having an affair has already done something wrong, whereas thoughts about immoral actions are morally neutral for Jews. (Cohen et al., 2003, p. 287)

Therefore, one's beliefs are not threatening to one's identity as a Jew; there is no systemic threat of social rejection for not being "Jewish enough" or for not adhering strictly to Jewish law.

Jewish identity is most commonly understood as a chosen and otherwised unearned group membership rather than just one component of an intersectional identity such as race and gender that is (Zohar et al., 2005). Though certain smaller immigrant groups retain more of an ethno-cultural identification with the specifics of their group practices. "The Jewishness of certain Jews, like traditional American Syrian Sephardic Jews of Middle Eastern and North African descent, is better understood as a tradition—a context from which the self emerges instead of just one of many identities these Jews bear" (Bitton, 2022, p. 626). All told, American Jews are a diverse group who share a range of cultural markers that define them as Jews and no one marker is definitive, especially religious belief. Like other religions, there is a broad range from liberal to ultra-conservative belief and practice of Judaism.

Further, in the choice of expressing Jewish identity, religiosity is a personality factor that is not accepted as a necessary component of being a Jew. This differs from other religions in that "among Jews, spirituality and religious belief correlated much less with life satisfaction" even though "different facets of religiosity (such as religious belief, spirituality, public practice of religion, and social support obtained through religious sources) were correlated with measures of life satisfaction" equally to Catholics and Protestants (Cohen et al., 2003, p. 288). Tellingly, Jews do not endorse less life satisfaction than other religious groups. With spirituality and religious

belief, “social support obtained through religious sources correlated modestly and to similar extents with life satisfaction” (Cohen et al., 2003, p. 288). All these factors seem to put less pressure on Jews to confirm to high expectations of morality as exemplified by spiritual or religious practice which should have a downstream effect on developing symptoms of scrupulosity. However, this is not the case. Jews report similar rates of scrupulosity as non-Jews.

This should not be interpreted that religion is unimportant to a sense of Jewish identity, however. How religious one is considered by other Jews is based on the degree to which one adheres to the traditional practice of Judaism, which “involves complicated rituals and thus requires a significant level of religious knowledge” (Cohen et al., 2003, p. 288). Judaism has a strong educational tradition of teaching children about their religion including sacred texts, the written and spoken language, and rituals, culminating in a social/religious ritual marking them as mature members of the community around age 12 when they make Bar Mitzvah and Bat Mitzvah. This practice enhances a sense of tradition that “functions as a context from and through which individuals are shaped” (Bitton, 2022, pp. 633–634). This coming-of-age ritual connects one to the broader Jewish community, though it is not necessarily connected to spiritual beliefs. Following the emphasis on rituals as more important than one’s thought processes about them, in Judaism, thoughts are not considered sinful unless one acts on them. “Thoughts about immoral actions are morally neutral for Jews” (Cohen et al., 2003).

Religiosity among Jews is generally considered to be more related to observance of religious rituals than personal belief. In a study of both ultra-orthodox and non-orthodox Jews in Israel, four types of religious practices elicited OC symptoms: ritual cleanliness before prayer, the correctness and completeness of prayer, menstrual ritual cleanliness, and dietary practices. OCS related to religious practice were found in 68% of the ultra-orthodox subjects and 6% of the

non-orthodox subjects (D. Greenberg & Witztum, 1994). The authors surmised, “The law is rigorous in its demands, in many cases encouraging repeating rituals. Nevertheless, repetitive performance of religious rituals is recognized by OCD sufferers and their rabbis as expressing psychopathology rather than heightened spirituality” (D. Greenberg & Witztum, 1994, p. 211).

Zohar et al. (2005) observed that in this population of both more liberal and conservative sects, “a lot of religious observance is non-reflective, and is not associated with individual differences in personality or obsessive–compulsive symptoms” (p. 857). Religious fervor may be in response to the degree of the individual’s OCD tendencies where “the more obsessive–compulsive become more religious, and the less obsessive–compulsive less religiously observant (Zohar et al. 2005, p. 857). While religious observance is generally considered admirable in Jewish culture, the inverse belief that less religiosity is less favorable is not a common attitude among Jews (Rosmarin et al., 2010).

The majority of American Jews are less ritualistically observant and considered “Reformed” and for whom intermittent practice of rituals, particularly feasts and attending temple on the Jewish High Holidays, is the norm. However, there is a significant minority of Ultra-Orthodox Jews whose daily practice of Jewish law is a way of life and for whom transgressing its protocols is a serious offense. Community norms may reinforce high religiosity and fail to recognize excessive religious activity as a mental health issue (Rosmarin et al., 2010).

Religious communities may normalize symptoms of scrupulosity given their likeness to religious practices. Furthermore, scrupulosity may be viewed as an indication of piety at the community level, and its symptoms may therefore be reinforced through praise.

(Rosmarin et al. 2010, p. 931)

In multiple studies of Jews in Israel, both Reformed and Ultra-Orthodox “Haredi” Jews have shown increased levels of religious scrupulosity (Rosmarin et al., 2010). Due to the highly complex system of rules within Judaism, and the interpretations of various rabbinical traditions, religious Jews may have a need for certainty of interpretation that would stimulate obsessive thoughts even for people without OCD (Cohen et al., 2003). The Haredi sect requires not only right thinking and motivation, but right action, as well. In the many ritualized acts prescribed, including “prayer, charity, or Sabbath observance” (World Population Review, n.d.), if one were to be unsure if they had been done correctly, it would cause repetition to be desirable to alleviate any such concerns. This repetition has “a superficial similarity with the compulsive checker’s fears that taps, switches, locks, etc., may not have been secured properly” (D. Greenberg, 1984, p. 525). Other rituals in Judaism also replicate obsessive–compulsive concerns.

The rituals of the Jewish religion would appear to be particularly comparable to the more frequent compulsive rituals. The dietary laws’ avoidance of non-kosher food and separation of meat and milk food resemble the obsessional’s fear of contamination, and the removal of leaven from the Jewish home before the festival of Passover is usually translated into a meticulous housecleaning. (D. Greenberg, 1984, p. 524)

Consistent with the religion’s emphasis on maintaining reason and moderation of one’s behavior in all things, guidance for obsessive worries is anticipated within rabbinical guidance (D. Greenberg, 1984).

If, having completed the Passover cleaning, a person starts to worry that some bread may subsequently have been brought into the house, the Jewish law states that “one should not worry,” adding perceptively “or there would be no end to the matter.”...The law is concerned that the religious rituals are carried out correctly at the first attempt, and

repetitions/cleanings, etc., are only required if omissions definitely occurred. From the viewpoint of the Jewish religion, neurotically motivated fulfillment of precepts is not considered religious. (D. Greenberg, 1984, p. 528)

“Judaism has certain rituals particularly suitable for the development of obsessive fears” (D. Greenberg, 1984, p. 530). It is “characterised by numerous rituals and laws that pertain to nearly every area of existence” (Horwitz et al., 2019, p. 83). However, in the long tradition of rabbinical writing and interpretation, the jumping off points into OCD behaviors have been not only anticipated, but given direction as to how to deal with effectively. It becomes imperative then that mental health providers have a cooperative relationship with religious authorities who can answer their questions and ensure therapy is respectful of their patients’ religion.

In a recent qualitative study in Israel of 15 ultra-orthodox rabbis’ attitudes about and advice for handling scrupulosity, “All rabbis were familiar with scrupulosity and distinguished it from normative behaviors” (Horwitz et al., 2019, p. 2). This is important because they “interpret Jewish law (Halacha), and community members commonly turn to them for legal, spiritual and personal guidance. Thus, within Ultra-Orthodox Jewish society, rabbis are commonly perceived as arbiters on a wide variety of issues, including one’s personal conflicts” (Horwitz et al., 2019, p. 83). The themes of the rabbis’ responses related mainly to psychological constructs rather than religious interpretation. They reported willingness to collaborate with therapists, but also reflected concern for therapeutic interventions that differed from a religious worldview. Coordination with a patients’ rabbi could be especially useful in conveying psychological constructs in words that are “more acceptable to the ears and hearts of Ultra-Orthodox patients” and “better motivate patients from this background to engage in successful therapy” (Horwitz et al., 2019, p. 95).

Islam

As one of the three monotheistic world religions, Islam is the second largest with over 2 billion followers. Its growth is projected to exceed Christianity by 2050 (World Population Review, n.d.). Islam has two main denominations with distinct differences in prevalence in predominantly Muslim countries: Sunni (75–90%), predominant in Egypt, Saudi Arabia, Syria, Turkey, Afghanistan and Pakistan, and Shi’a (10–13%), predominant in Iran, Azerbaijan, Bahrain, Iraq, and Lebanon (Lipka, 2014). Though they differ in doctrine, both Shi’a and Sunni Muslims are instructed to follow strict schedules of religious rituals such as prayer, cleansing the body, and fasting (Okasha et al., 1994).

Moslems, who constitute almost 90% of the Egyptian population, are required to pray five times a day. Each prayer is preceded with a ritualistic cleansing process (*El Woodoo* or ablution), which implies the washing of several parts of the body in specific order, each three times. This ablution is annulled by any form of excretion or ejaculation, and for some radical Moslems, by any contact with the opposite sex even as slight as a handshake. ...The prayers themselves are different in length and consist of certain phrases and “sourus” from the Holy Kuran that have to be read in certain sequence. (Okasha et al., 1994, p. 194)

Multiple studies in Islamic countries have confirmed a high rate of religious obsessions and compulsive religious acts (Al-Solaim & Loewenthal, 2011; Altwaijri et al., 2024; Mahgoub & Abdel-Hafeiz, 1991). OCD prevalence was reported to range from 40% in Bahrain (Shooka et al., 1998) to 50% in Saudi Arabia (Mahgoub & Abdel-Hafeiz, 1991), and 60% in Egypt (Okasha et al., 1994). “obsessive–compulsive disorder in Islamic and Arab culture is not different in form but in content from the West; obsessional thoughts and rituals are modified by the Islamic

culture” (Al-Issa, 2000, p. 237). A hint that scrupulosity may be an endemic component of OCD in Islamic culture is found in the language used for religious concerns. “Another evidence of the religious connotation inherent in OCD in Moslem culture lies in the term “El Wewas.” This term is used in reference to the devil, and at the same time is used as a name for obsessions” (Okasha et al., 1994, p. 194).

The word *waswas*, *obsession* in English, is mentioned in Qur’anic verses as equivalent to *sheytan* (devil), which bears a negative connotation. Thus, *waswas* may create anxiety in patients based on the belief that they might be haunted by an evil spirit. This idea may be suggested to the patient by a faith healer. Moreover, a belief in *waswas* and its meaning is common knowledge to all Muslims. (Al-Issa, 2000, p. 237)

Islam presents ripe conditions for developing scrupulosity due to its emphasis on highly proscribed daily rituals which could easily become the focus of obsessive doubt and compulsive repetition (Okasha et al., 1994).

The faithful suffering from *waswas* find it hard to terminate the ablution because they are afraid that they are not yet clean enough to carry out the prayer in an acceptable manner. Starting the prayer immediately after the ablution ritual, the faithful will repeat the introductory invocations as well as the raising of the arms more times than is called for, because they are distracted from focusing on God. Finally, at the end of the prayer, the faithful may have doubts about whether they might perhaps have forgotten some words, and so they will start all over again from the beginning. (Al-Issa, 2000, p. 14)

Female muslims may be particularly affected by the emphasis on ritual purity and practical matters of bodily cleanliness (Okasha et al., 1994).

Women are not allowed to pray or touch the Koran during their menstruation, after which they should clean their bodies through a ritualistic bath ...The emphasis on cleanliness or ritual purity is the cornerstone of most of the compulsive rituals. The number of prayers and the verbal content can be the subject of scrupulousness, checking, and repetition. The ritualistic cleansing procedures also can be a source of obsessions and compulsions about religious purity, e.g., in some compulsives the color red (reminder of menstruation) may trigger a compulsive washing. (Okasha et al., 1994, p. 194)

The importance placed on personal cleanliness could predispose Muslims to hyper-sensitivity to fears of contamination. A propensity towards experiencing much disgust may be a factor increasing vulnerability for contamination obsessions in Muslims (Inozu et al., 2014).

It is also characteristic of a conservative society like that of Egypt to expect sexual obsessions to be among the most frequent in 195 female patients. Although it is accepted socially (but prohibited religiously) for Egyptian males to have a wide range of sexual freedom in all stages of their lives, sexual matters remain an issue of prohibition, sin, impurity, and shame for Egyptian women. This is to the extent that radical Moslem individuals demand an ablution before prayer, for both men and women, if the man touches or salutes a woman with as little as a handshake. The female gender is surrounded by so many religious and sexual taboos that the issue becomes a rich pool for worries, ruminations, and cleansing compulsions in women susceptible to developing OCD. (Okasha et al., 1994, pp. 194–195)

Islamic religious life is also focused on living according to principles of right thought and right action that can be affected by cognitive distortions such as Thought Action Fusion. “Purity

of thought has been emphasised (sic) in Islamic doctrine” (Jones et al., 2019, p. 37). As an aspirational goal, complete purity of thought is impossible to attain considering that community studies show that ordinary people have multiple intrusive thoughts per day of a variety of content, including moral and religious thoughts. “According to cognitive-appraisal models of OCD, most people experience a range of intrusive phenomena that are similar in form and content to clinical obsessions” (Melli et al., 2016, p. 227). In a 1994 study in Qatar, 68% of females experienced symptoms of scrupulosity around rituals; while obsessional fears “revolved around failure to control devil-induced impulses to harm the self or others” (Takriti & Ahmad, 2000, p. 237).

OCD rituals and behaviors must be understood within their cultural context in highly religious societies. Obsessions and compulsions can be carried out very precisely and with a great deal of distress but are nevertheless considered normative due to the high value placed on precise, perfectionistic performance of religious rituals. Such OCD behaviors become “masked by the rigid and ritualistic behavior accepted by the group” (Al-Issa, 2000, p. 13). These behaviors are not considered to be disordered, but an indication of an admirable achievement of religiosity. “Persons who would seem to be compulsive in a loosely structured social system would be more normal in (a strict religious sect), where life is highly regulated by tradition. The (religious) culture provides such persons with socially approved outlets for compulsiveness” (Al-Issa, 2000, p. 14).

This syndrome, however, is not considered an illness that requires treatment; it is simply a temptation of the devil that distracts the faithful from carrying out their religious duties. The meticulousness of the victim in religious matters deserves respect rather than ridicule by the community. (Al-Issa, 2000, p. 14)

In this context, scrupulous adherents “react to most stresses with signs of depression rather than with anxiety symptoms or obsessive or paranoid tendencies as neurotic patients often do in American culture” (Al-Issa, 2000, pp. 13–14).

Scripture that can lead to scrupulosity. Certain scriptures from the Quran could easily become the focus of obsessive worry.

To Allah ‘alone’ belongs whatever is in the heavens and whatever is on the earth.

Whether you reveal what is in your hearts or conceal it, Allah will call you to account for it. He forgives whoever He wills, and punishes whoever He wills. And Allah is Most Capable of everything. (The Quran, 2004, *Surah Al-Baqarah* – 284)

Interpreting such scripture literally could lead to over-concern for one’s thought life increasing guilt as well as feeling over-responsible for potential harm to others.

The religious nature of upbringing and education in Egypt, the emphasis on religious rituals, and the warding-off of blasphemous thoughts through repeated religious phrases such as “I seek refuge with the Lord from the accursed satan” can explain the high prevalence of religious obsessions and repeating compulsions among our Egyptian sample, even if the subjects are not practicing their religious duties. (Okasha et al., 1994, p. 194)

Consistent with studies of other religions, Muslims with religious OCD symptoms usually turn first to religious advisors for help understanding their symptoms. In Egypt, “native healers, religious people, friends, and family elderly are the primary caregivers for psychologically disordered individuals. When those lines of intervention fail, the general practitioner, followed by the psychiatrist, are the next resort” (Okasha et al., 1994, p. 195). Across the Muslim world, scrupulosity is common, yet often unrecognized by imams and clergy

(Jones et al., 2019). In a study of Shia imams in Iran and Sunni imams in Australia, “The majority of imams were unfamiliar with scrupulosity as a possible symptom of a mental health problem, such as OCD, and with ERP as a recognised treatment for OCD” (Jones et al., 2019, p. 29). With little context for understanding the value of referring Muslims with OCD for mental health treatment, opportunities for collaboration were few.

While 37% of participants reported having been approached by mosque-goers for help with scrupulosity, only 9% referred mosque-goers to mental health professionals, and only one imam reported having referred a mosque-goer for ERP. (Jones et al., 2019, p. 29)

It is important to appreciate that Islam as a religion does not encourage obsessions or compulsive behavior. Although Muslims with OCD typically do focus the content of their OCD symptoms on religious themes and practice, “This does not imply that Islamic beliefs reinforce the evolution of OCD. The effects of religion on OCD seem to be pathoplastic rather than causative” (Takriti & Ahmad, 2000, p. 239). As in Christianity and Judaism, the religious traditions of Islam have anticipated this issue and clearly indicate when such behavior becomes pathogenic. “Islamic teaching tells not to repeat more than the assigned number of washings; consequently such rituals with religious content are necessarily considered morbid behavior” (Takriti & Ahmad, 2000, p. 239).

Buddhism

The prevalence of OCD in cultures where Buddhism predominates follows roughly the same pattern as in other religious cultures (Subramaniam et al., 2012). However, there has been little research on OCD in Buddhist cultures (Thanissaro & Kulupana, 2015). In the few studies available, there have been no studies that focus on symptoms of scrupulosity.

In Buddhist countries, the impact of different cultural beliefs about religion and mental illness can lead to misunderstanding and misapplication of diagnoses. “Most notions of “madness” and “mental abnormality” on which the mental health systems in the West ... are linked to western ways of thinking—and these may conflict with the worldviews of non-western cultures, such as Buddhism” (Thanissaro & Kulupana, 2015, p. 29).

Lack of knowledge of the variety of normative cultural beliefs rooted in Buddhism can lead to “the alienation of having been labelled “mentally ill” and pathologization of Buddhist spiritual experiences as diverse as seeing ghosts, believing in the outcomes of karma, heaven and hell, meditation experience, or reliance on a spiritual teachers” (Thanissaro & Kulupana, 2015, p. 30).

The cultural dissonance between western and eastern definitions of mental health are brought into relief by the words of a 13-year-old Thai Buddhist girl Thongthida: if they were to institutionalize every Thai person who believed they had seen a ghost, there would not be enough space [inside] for everyone. (Thanissaro & Kulupana, 2015, p. 29)

OCD among Buddhists has been studied very little, though the doctrine of the religion speaks to obsessive–compulsive concerns (T. Olson, 2003).

The general unfairness of the human situation, and the more specific injustice of the trap posed by obsessions and compulsions, is unlikely to surprise individuals with OCD. They live with such a realization on a day-to-day basis. What might be less expected, at least for OCD clients in the West, is how directly their situation is spoken to in Buddhist literature, and the extent to which this literature has informed a major approach to treating OCD. (T. Olson, 2003, p. 150)

Borrowing from the Buddhist construct of mindful awareness, the follow four steps follow “a fairly straightforward and simple, four-step cognitive behavioral method” (T. Olson, 2003, p. 151) for controlling OCD symptoms:

1. Relabeling, in which intrusive thoughts or urges are called exactly what they are: obsessions or compulsions rather than useful objects of attention;
2. Reattributing, in which the obsessions and compulsions become understood as related to a biochemical imbalance in the brain rather than real, external threats;
3. Refocusing, in which attention is turned to more constructive behaviors, sometimes including positive activities that focus on the very thing that is precipitating the OCD, such as sewing with red fabric even though the color red is associated with OCD symptoms;
4. Revaluing, in which the obsessive thoughts and compulsive urges are essentially devalued “as the useless garbage they really are.” (Schwartz, et al.,1996, p. xxii)

Though mental health therapists can become proficient in identifying and treating OCD, therapists’ lack of cultural competence can be a significant hindrance. “The general lack of familiarity with even basic Buddhist beliefs makes adherents vulnerable to suspicion of abnormality earlier in the diagnostic process than would be the case for patients adhering to Abrahamic traditions” (Thanissaro & Kulupana, 2015, p. 30).

Health professionals dealing with Buddhist patients can be left in a dilemma as to whether supposed “peculiarities” constitute abnormality ... (due to the) professional experience of clinicians with no first-hand knowledge of what it means to be Buddhist. Those decisions could be made more culturally sensitive if clear guidelines were made

available as to “typical” Buddhist thinking and behaviour. (Thanissaro & Kulupana, 2015, pp. 29–30)

No epidemiological or phenomenological studies have been made on the relationship between Buddhist religious practice and scrupulosity. One case study of a Christian fundamentalist woman with scrupulosity achieving clinical resolution of her symptoms was made by a psychotherapist practicing Zen Buddhist techniques (O’Sullivan, 2006).

The Zen Buddhist spiritual perspective with the associated “cognitive set” of oneness and respect for the common human struggle with “opposite thinking”... (is) especially useful with someone with “rigid” religious beliefs as they allow for a relaxation of the mind that in itself promotes openness and healing. There is no challenging of the client’s beliefs and no attempt to change them. (O’Sullivan, 2006, p. 517)

O’Sullivan (2006) reflected that her patient benefitted as much from this perspective as shifting her view of her relationship with God within traditional talk therapy. Her eclectic approach allowed her to integrate her beliefs while preferencing her patient’s psychological wellbeing.

As the therapist in this process I also had some orthodoxy to let go of for we Buddhists are advised “don’t make inside or outside, okay.” Inside and outside is still a dualistic perspective. This process was about psychological healing not any adherence to any spiritual perspective. (O’Sullivan, 2006, p. 530)

Her patient was feeling distant from God and preoccupied with thoughts of being unacceptable. “So much of her fear was connected to loss. She had felt abandoned by God and had a difficult time, as we all do, with the idea that there is so much suffering in the world” (O’Sullivan, 2006, p. 529).

O’Sullivan approached therapy from a stance of acceptance of duality, a sensitive approach to exposure to her obsessional thoughts. “She didn’t need to “show God the door” but was able to keep “God” in her life but with a different style of relating ... she obviously cares very much about the relationship since she worried about it so much” (O’Sullivan, 2006, p. 529).

With this combined therapeutic approach she was able to relax her attachment to her ideas about “God” and stop thinking about “Him” so much. Through healing her losses and separation from herself she was able to feel more connected to others and “God” shifted positions from “out there” to “in here” as she said pointing to her heart—a more intimate relationship. (O’Sullivan, 2006, p. 530)

This relational approach allowed her patient to increase her sense of spiritual connection and O’Sullivan felt a shift in their therapeutic alliance. Assessment of her now sub-clinical OCD symptoms confirmed a “significant improvement that I was seeing in her relationship with God, with self and with me” (O’Sullivan, 2006, p. 530).

While therapy using a Buddhist perspective with patients of other religions can thus can be effective, there is a need for more qualitative research on the experience of Buddhists with scrupulosity. More research on the range of Buddhist beliefs represented by people with OCD would help in identifying and treating scrupulosity, as well as constrain potential overpathologizing of normal Buddhist concerns (Thanissaro & Kulupana, 2015).

Hinduism

Few studies of OCD or scrupulosity have been made among Hindus (Rakesh et al., 2021). Lifetime prevalence of OCD in India was found to be .6% in the only epidemiological study to date, somewhat lower than found in other countries (Dhuri & Parkar, 2015). Other demographic variables were largely consistent with western populations (Reddy et al., 2010). A

study of a clinical OCD population in India examined the correlation between religiosity, guilt, and OCD in Indian Hindus and Sikhs showed scrupulosity is highly prevalent among other obsessions. Thirty six percent of Hindus with OCD experience religious obsessions at the highest prevalence of OCD symptoms, often pertaining to ritual purity. Contamination obsessions and cleaning/washing compulsions were also common at 26% (Rakesh et al., 2021).

Subjects had chief complaints in form of contamination and religious obsessions, cleaning/washing compulsion, sexual obsessions, religious obsessions, contamination obsessions, aggressive obsessions, and checking compulsions in descending order. (Rakesh et al., 2021, p. 47)

Rakesh et al. concluded that cultural factors likely contribute to increased religiosity in India as well as some unique cultural traits that may be protective factors.

These differences can be attributed to cultural factors and the fact that these factors contribute to promoting faith and spirituality from childhood onwards and leading to the development of the superego which is more punitive and harsh, which further has a role in the development of guilt. (Rakesh et al., 2021, p. 47)

While these results were in line with studies in different countries, cultures and religions, specific differences in scrupulosity or other OCD subject domains between Hindus and Sikhs have not been reported in the literature. However, scrupulosity in religious rituals commonly can be observed in “purity mania” in Hindu practice. Religious rituals involving purity are commonly a focus of scrupulosity in Hinduism. “A typical example of purity mania is an elderly woman who always carries a bottle of Ganges water under her arm which she uses to dispense “purity,” by “sprinkling water around her” (Al-Issa, 2000, p. 14).

The Hindu and Sikh religions being very flexible in terms of the punctuality of prayers, rituals, and cleanliness factors can be considered as one of the preventive factors related to the symptomatology of OCD as compared to the Muslim population. (Rakesh et al., 2021, p. 47)

Further research is needed to describe the prevalence and presentation of OCD and scrupulosity within Hindu populations in more detail, as well as assess the efficacy of current practices commonly used to alleviate OCD symptoms among Hindus.

New Age Spirituality / Traditional Superstitious Beliefs

While the majority of Americans identify as Christian, approximately 60% of Americans, including many with no religious affiliation, also believe in “reincarnation, astrology, psychics and the presence of spiritual energy in physical objects like mountains or trees” (Gecewicz, 2018). About 22% of Americans consider themselves to be spiritual but not religious, and, of those, approximately 75% ascribe to one or more New Age beliefs (Gecewicz, 2018). “New Age spiritualists often focus on self-improvement rather than relationship with a personal deity or traditional religious group participation” (Cohen & Johnson, 2017, p. 543). Emphasis is placed on quality of relationships and values such as peace and harmony.

For many, religion and spirituality is a bricolage of beliefs and practices drawn from many different religious traditions and philosophical perspectives (Heelas, 1996). Thus, it may be increasingly difficult to isolate the precise religious variables influencing well-being. (Cohen & Johnson, 2017, p. 543)

New age religiosity typically involves a mix of religious beliefs from different traditions, as well as folk spirituality (Cohen & Johnson, 2017). Naturalistic and pantheistic beliefs abound.

Specifically, four-in-ten believe in psychics and that spiritual energy can be found in physical objects, while somewhat smaller shares express belief in reincarnation (33%) and astrology (29%). (Gecewicz, 2018, para. 2)

Folkloric religion and superstitious beliefs may seem an odd fit for comparison to religious and moral obsessions and compulsions, but there is evidence of a connection going back thousands of years (Kotze, 2013).

The belief that certain people have the ability to harm other people or objects with a mere glance may well predate history. References to this superstition are contained in various Sumerian incantations dating to the Old Babylonian period (ca. 2000–1600 B.C.E.). ...The Sumerian incantations, which make up the bulk of evil eye incantations from ancient Mesopotamia, were composed by specialist exorcists to treat paranoid schizophrenia. (Kotze, 2013, p. 268)

The phenomenon of folkloric belief in the supernatural and means and methods of influencing it is alive and well in contemporary cultures around the world (Ally & Yew-Siong, 2020).

Belief in supernatural entities, like witches and witchcraft exist in many religious and cultural systems and are believed to be the agents of misfortune. Generally, a person accused of witchcraft is likely to experience physical and psychological harm, with historic and contemporary evidence supporting this. (Ally & Yew-Siong, 2020, p. 51)

While scrupulosity is generally seen among people with mainstream, traditional religious beliefs, it can also manifest in the context of folkloric superstition and syncretistic New Age spiritualism, particularly as it relates to magical thinking and Likelihood TAF (Agorastos et al., 2012; Mauzay et al., 2016).

This is very similar to the superstitious folk belief that a person can have an “evil eye,” making negative events occur for self and others by thinking about those events (even unintentionally). In this regard, “evil eye” can be regarded as a kind of probability thought-action fusion, which plays a role in the development and maintenance of scrupulosity. That is, when people experience intrusive thoughts about and urge for hurting themselves or others, they might assume that those thoughts would occur due to their “evil eye.” As a result, they would suppress those thoughts and urge or use various ways to neutralize them. (Kaviani et al., 2015, p. 56)

With the rise of Rationalism, there was an expectation among Western intellectuals that traditional folkloric superstition would be replaced with more scientific explanations of causation and that such ancient practices would die out (C. Campbell, 1996; Keinan, 2002).

It was once thought that magical thinking is prevalent mainly among primitive tribes (Frazer, 1890/1959; Malinowski, 1954), young children (Freud, 1919/1955; Piaget, 1929), or individuals suffering from certain mental disorders (Klein, 1946/1987; Wilder, 1975). However, later research has indicated that this type of thinking also is prevalent among adults in the Western culture, including those who are educated, intelligent, and mentally healthy. (Keinan, 2002, p. 102)

The universal human need to have a sense of control over one’s environment is understood to be a foundation of psychological health (Ryan & Deci, 2018).

Sense of agency is a special subset of our understanding of causality. It is special because it reflects an understanding of how our actions cause changes in the world, because it has significant affective and behavioral consequences, and because it enables us to distinguish self-caused events from externally caused events. (Gozli, 2019, p. 139)

When self-agency is impaired, psychological distress ensues (Ryan & Deci, 2018). Under stressful conditions, research shows that magical thinking and superstitious behaviour become more prevalent, possibly because stress makes it harder to have a sense of control. To regain an illusion of control people will perform superstitious or magical rituals (Keinan, 2002, p. 102). Magical thinking is a construct that can operate both to cause a specific action that is otherwise outside one's ability to cause or, conversely, to prevent some feared outcome, particularly of destruction or harm (Agorastos et al., 2012).

Magical thinking refers to beliefs that defy culturally accepted laws of causality. In Western culture magical thinking refers to beliefs in, among other things, clairvoyance, astrology, spirit influences, and telepathy. In OCD, magical thinking refers to the belief that certain thoughts or behaviours exert a causal influence over outcomes. (Evans et al., 2002)

Some superstitious beliefs such as using rituals or saying an incantation can determine the outcome of an unrelated event “closely resemble OC phenomena” (Sica et al., 2002a, p. 1003). Magical thinking is a belief that by the increasing one's sense of external agency through superstitious belief they can increase the probability of a favorable outcome. There is some empirical basis for such a belief. Damisch et al. (2010) found that priming with a suggestion of a superstition to ensure success had a statistically significant effect that increases success in simple experimental tasks. “Those for whom a superstition was activated performed better in various motor and cognitive tasks compared with participants for whom no such concept was activated” (Damisch et al., 2010, p. 1018). The experiment also “showed that these performance-enhancing effects are mediated by an increase in perceived level of self-efficacy.

Activating a good-luck superstition leads to improved performance by boosting people's belief in their ability to master a task" (p. 1018).

However, superstition has been found to be correlated to higher levels of psychopathology, in general, and a perceived lack of control similar to learned helplessness. "Superstitious individuals differed from non-superstitious subjects with respect to OC symptoms, cognitions and worry, even when anxiety and depression were controlled" (2002b). There is also some evidence that superstitious beliefs about good or back luck and purported ways to influence them can be passed down through successive generations by enacting symbolic cultural practices (Bolton et al., 2002). Considering the strong heritability of OC traits, it is not surprising that alternate means of coping as well as cognitive distortions about causality would be passed through the generations, as well.

Cognitive distortions common in OCD are also prevalent in highly superstitious individuals, primarily overestimation of threat, inflated responsibility, and intolerance of uncertainty. "Overestimation of threat is a cognitive feature which definitely contributes to maintain a sense of threat and lack of control" and is a discriminating factor between high and low degrees of superstition (Sica et al., 2002a, p. 1008). Further, "the belief may be self perpetuating. The more the individual observes himself/herself performing superstitious behaviors the more he/she will come to the conclusion that a real danger must exist" (Sica et al., 2002a, p. 1008).

Sica et al. (2002b) also found that perfectionism negatively correlated to superstition, further suggesting that the high degree of personal control and self-efficacy commonly experienced by perfectionistic individuals may be lacking in those with high superstition.

Further, Borkovec and Roemer (1995) found that subjects with generalized anxiety disorder reported that high levels of worry decreased the likelihood of the worrisome event to occur, in a type of reverse effect of likelihood thought-action fusion. This suggests that the cognitive control to produce superstitious thoughts in response to worry may be instrumental in increasing one's sense of external control. It also serves to decrease anxiety proactively in an opposite mechanism from the anxiety experienced with unwilling mental intrusions. It is possible that actively entertaining superstitious thoughts is an avoidance technique by which intrusive thoughts are held at bay and the feared outcome is therefore perceived as less out of one's control (Sica et al., 2002a, 2002b).

Sica et al. concluded that more study of the relationship between superstition and OCD is needed.

One may wonder if superstitious individuals are more prone to develop OCD. Even though we did not have direct evidence to answer this question, our study suggests that superstitious people might be more prone to acquire any form of psychological disorder which involves the generalized expectations about danger. (Sica et al., 2002a, p. 1010)

Further, New Age belief has been highly correlated to insecure adult attachment style (Granqvist et al., 2007).

Estimates of parental rejection and role reversal were related to New Age spirituality and sudden-intense religious changes occurring in life contexts of turmoil. Current attachment state of mind was generally unrelated to traditional religiosity, but current preoccupation, unresolved-disorganized, and cannot classify states were associated with New Age spirituality. (Granqvist et al., 2007, p. 590)

It is possible that a chaotic family history, maladaptive self schemas, and disorganized adult attachment styles based on unreliable early life caregiving is reflected in the syncretism of multiple unrelated belief systems in an attempt to make a coherent God representation out of them (Bracken, 2002; McDonald et al., 2005; Pirutinsky et al., 2017). No studies have yet focused on this line of inquiry that may be fruitful in addressing scrupulosity in a substantial portion of the population. The potential advantages of addressing attachment to God in therapy will be discussed in Chapters 6 and 7.

Agnosticism / Atheism / Non-Religious Belief Systems

There is a wide range of belief and non-belief among people who do not identify with one of the mainstream religious groups in the United States and other Western countries. This non-conforming group is rapidly growing.

Currently, about three-in-ten U.S. adults (29%) are religious “nones,” people who describe themselves as atheists, agnostics or “nothing in particular” when asked about their religious identity. ... Christians now outnumber religious “nones” by a ratio of a little more than two-to-one. In 2007, when the Center began asking its current question about religious identity, Christians outnumbered “nones” by almost five-to-one (78% vs. 16%). (G. A. Smith, 2021, para. 3)

Americans who identify as atheist, agnostic or otherwise religiously unaffiliated are about as likely as Christians to hold New Age beliefs.

Atheists are much less likely to believe in any of the four New Age beliefs than agnostics and those who say their religion is “nothing in particular.” Just 22% of atheists believe in at least one of four New Age beliefs, compared with 56% of agnostics and eight-in-ten among those whose religion is “nothing in particular.” (Gecewicz, 2018, para. 4)

According to the Pew Research Center, atheists are the group with the least belief in New Age spirituality (Gecewicz, 2018).

Americans who reject both the religious and spiritual labels also are more likely to reject New Age beliefs. Roughly three-in-ten or fewer in this group believe in psychics, reincarnation, astrology or that spiritual energy can be found in objects. And fewer than half (45%) affirm one or more of these beliefs. (Gecewicz, 2018, para. 6)

Non-theistic belief systems by definition do not ascribe to religious belief that could become the subject of religious obsessions. However, several prominent features of scrupulosity can and do present in non-religious people with OCD. Pathological doubt could be a primary driver of the inability to resolve the question of religious belief for people identifying as agnostic. No articles relating agnostic religious beliefs or atheism and obsessive-compulsive symptoms were found in a keyword search of databases.

However, moral obsessions can be centered on any strongly held system of beliefs with a moral or ethical framework, including such culturally relevant beliefs such as political ideology, feminism, humanism, anti-racism, and environmental and climate change ethics. A sense of shared humanity, and its inferred shared responsibility both for and to other people, primes a sense of being personally responsible, perhaps overly so, in people prone to scrupulosity (Bouchard et al., 1999).

As climate change has been linked to increasing anxiety and prevalence of mental health impacts, it is likely that future studies may examine a correlation between non-religious beliefs, such as environmentalism, fear of the environmental effects of climate change, and obsessions and compulsive actions (Grøtte et al., 2015; Mantz & Abbott, 2017). One study linking

environmental impacts of climate change to mental health challenges in youth in South Africa was found in a search of available databases.

As anthropogenic climate change dominates present day culture through youth movements, legislature, media, global health summits etc., it is likely to influence OCD symptomatology. Unfortunately, to date, there are relatively few studies on the effects of climate change on OCD (26) and none in South Africa. In 2008, Jones et al. found that 28% of 50 patients with OCD in Australia had symptomatology related to climate change. Obsessions revolved around increasing temperatures causing evaporation of pets' water, depleting power and water sources by leaving lights and taps on and global warming leading to infrastructural damage. (Subramaney et al., 2022, p. 153)

This is a fertile area for future study due to the increased effect of climate change concerns observed in mental health practice, especially among adolescents and young adults who report OCD behaviors such as fear of making the correct environmentally impactful consumer choices and sometimes feel the need to enact symbolic compulsions which have little effect. These behaviors may reflect an increased existential fear that correlates to increased OCD symptoms as do other existential concerns of a spiritual or religious nature.

Treatment Considerations

Due to the often shameful and “forbidden” content of obsessions, those suffering from scrupulosity may avoid admitting their struggles. Spiritual struggles are correlated with negative religious coping (Agorastos et al., 2012; McConnell et al., 2006). In a study measuring religious coping, “spiritual struggles were positively associated with a wide range of psychopathology symptoms, including symptoms of anxiety, phobic anxiety, depression, paranoid ideation, obsessive–compulsiveness, and somatization. These relationships were robust, remaining

significant after controlling for demographic and religious variables” (McConnell et al., 2006, p. 1479). Agorastos et al. (2012) reconfirmed that result and that negative religious coping was the only underpinning factor uniting OCD and anxiety disorders with religious/spiritual concerns.

Spiritual struggles are defined as religious/spiritual expressions that reflect a religious/spiritual system in tension and turmoil. This tension may be manifested: (1) with the Divine, such as anger at God or a higher power, (2) interpersonally, such as conflicts with one’s religious community, or (3) intrapersonally, such as inner struggles to believe and religious doubting, religious fear, and religious guilt (Ano & Pargament, 2012, p. 419).

Of those who do seek help, Christians, Muslims, and Jews usually prefer to consult their religious authorities with questions of morality and faith (Horwitz et al., 2019; Meylink & Gorsuch, 1988) rather than psychologists and other mental health professionals. “In a large survey, over 50% of individuals with self-reported OCD reported delaying or avoiding receiving treatment due to feelings of shame about having a problem or needing help” (Fawcett et al., 2020, p. 10).

The wise spiritual counselor would do well to recognize the need for professional psychological help, as well (Ciarrocchi, 1995; Collie, 2005).

Central to this challenge is to know when to call in the psychiatrist as a matter of legal accountability and how to take advantage of the pastoral skills of “a physician of the soul.” Most often it will require the particular abilities of many, for we are exploring a psychic black hole that sucks energy into it—one not in outer space but in the brain; a black hole sucking in both certitude and self-confidence that so disrupts the best efforts of pastor and parent, physician and priest. (Collie, 2005, p. 6)

Due to the complex etiology of scrupulosity and OCD, in general, it is likely that both psychological and theological expertise will be necessary in order to help the scrupulosity sufferer progress therapeutically (Ciarrocchi, 1995).

However, the difficulty of alleviating these symptoms is compounded by certain religious teachings which emphasize purity of thought and action as well as precisely perfect execution of religious rituals (Summers & Sinnott-Armstrong, 2015). The risk of scrupulosity developing among more conservative religious factions of the three monotheistic religions is increased due to the focus on strict adherence to scriptural interpretation and religious law (Deacon et al., 2013).

Clergy members may be under-educated and ill-prepared to address mental health in pastoral counseling. In studies of the experience of clergy with their more scrupulous members, frustration at being unable to offer complete certainty in matters of faith is a common theme (Collie, 2005).

Pastoral caring means forever updating one's expertise. Those who were taught a one-dimensional theology will have to decide whether it is a blessing or a curse to try to rise to the challenge of helping someone stuck with an obsession or a compulsion and in need of a growth model. (Collie, 2005, p. 61)

Meanwhile, secular therapists may not have cultural sensitivity to norms of religious thought and observance (Inozu et al., 2012; Miner et al., 2014; Siev & Cohen, 2007; Siev, Huppert et al., 2017).

Conversely, therapists working with scrupulosity have an additional concern of navigating the content of obsessions and compulsions with cultural-religious sensitivity that does not usually arise with other OCD themes (Abramowitz, 2001). A good place to start in therapy is

with a discussion on healthy religious practice that helps them practice as the religion was intended. Helping the patient identify the motivation for their religious compulsions as a response to fear rather than faith can help the patient understand that their obsessive–compulsive thought process is not healthy. Healthy religious practice leads to greater wellbeing contrasted with the pervasive fear that prevails with OCD and has led the patient to a frenzied dead-end of uncertainty. Focusing on the outcome of the religious practice relieves the temptation of the therapist to delve into a religious debate over the specific practices in which the patient is engaged. Likewise, allowing the topic to turn toward the patient’s specific religious beliefs puts them in the untenable position of having to defend their pathological behavior. This could also increase the patient’s desire to continue to seek reassurance, however, and is contra-indicated (Abramowitz, 2001).

Getting past that first hurdle, the therapist has another that may be even more of an obstacle. ERP involves desensitizing the patient to their intrusive thought. For example, when the person with OCD is told to blaspheme, they may become offended and not be willing to risk offending God when the goal is simply to desensitize them to the intrusive thought of blaspheming.

Properly designed exposure exercises for scrupulosity obsessions would include deliberately engaging in behavior that the patient erroneously perceives as violating the very religious or moral rules they fear violating ... if misunderstood, (exposure and response prevention) appears insensitive to religious values. Absent a clearcut rationale for how this type of treatment would be helpful, patients may balk at exposure instructions, and worse, view therapy as an assault on their religion. (Abramowitz, 2001, p. 122).

Additionally, the therapist may be tempted to offer reassurance to the patient that their transgression of the religious norm is acceptable in this specific context. Repeatedly reaching out to clergy for help resolving questions of theological importance can be a classic OCD reassurance-seeking behavior (Akhtar et al., 1975). This interaction unwittingly serves to strengthen the prevalence of OCD cognitions by attempting to dispel pernicious doubt, and draws the therapist into an unhealthy dynamic that reinforces the checking compulsion. Therefore, offering reassurance or even answering a patient's theological question is contra-indicated for success with ERP. Treatment failure or abandonment by patients is a major downfall of ERP and is likely to be higher still for patients with scrupulosity (Mataix-Cols et al., 2002; Wheaton et al., 2016).

Discriminating Scrupulosity Symptoms from Normal Religious Practice

Advice from Psychology and Psychiatry

Due to the wide variety of possible cultural religious contexts that may be encountered, some general guidelines are necessary in clinical practice for determining a pathological threshold for religious clients. Ciarrocchi (1995), a clinical psychologist, quotes psychiatrist David Greenberg's "five principles for distinguishing normal from pathological religious principles":

1. Compulsive behavior goes beyond the requirements of religious law. These are practices that are "more Catholic than the pope." If rules of fasting call for no food or drink, scruples become obsessions about not swallowing saliva (as if this were physically possible).

2. Compulsive behavior has a narrow focus. Persons may direct their attention to one aspect of religious experience, but exclude other—for example, spending all their energy avoiding sexual misconduct.
3. In a similar vein, compulsive behavior often focuses on what is trivial to religious practice. A person may worry about allowing holy water to fall on the floor when making the sign of the cross upon entering the church.
4. As a result of scruples' narrow focus, important areas of religious life are ignored. The person may be rigid about external rituals, but pays little attention to commandments relating to love of neighbor.
5. Scruples resemble the compulsions of OCD, in that repeating and checking play a prominent role. Major religions prohibit, either by law or custom, repeating prayers or rituals. (Ciarrocchi, 1995, p. 51)

Advice from Religious Experts

Likewise, the religious perspective on scrupulosity has contributed “the collective wisdom of centuries of pastoral practice” (Ciarrocchi, 1995, p. 77) of appropriate care of scruples.

These principles, over 400 years old, contain the seeds of modern behavioral treatments. Naturally, they are not systematically elaborated, nor did the authors have a premonition of classical conditioning. Nevertheless, we see the heart of learning theory strategies used to treat OCD: modelling, exposure to the upsetting situation, and blocking the compulsive response. (Ciarrocchi, 1995, p. 52)

The following principles are derived from Jewish, Catholic, and Protestant Christian sources (Ciarrocchi, 1995; Collie, n.d., 2005; Jackson, n.d.):

1. To avoid psychological and moral paralysis, the person has a duty to act contrary to the scruples. This notion of *doing the opposite* of scrupulous urges forms the foundation of exposure treatment for OCD developed by behavior therapists. In the 16th century, St. Ignatius Loyola, the founder of the Jesuits, wrote this same principle as a guide for overcoming scruples in his famous manual on spiritual development, *The Spiritual Exercises*. The principle became a proverb for spiritual direction, and was stated in Latin as *agere contra*, do the opposite.
2. The scrupulous person is permitted to use the behavior of conscientious persons as models for moral behavior, and follow their example without tedious moral reasoning.
3. The person with scruples should follow the guidance of a single spiritual director blindly. Jumping from one religious guide to another is forbidden.
4. One may and should place oneself directly in situations or circumstances which trigger the scruples.
5. One may not repeat religious rituals or prayers, nor let them function in any way as compulsions. (Ciarrocchi, 1995, p. 52)

Integrating Religious Belief with Psychological Treatment Approaches

Scrupulosity presents a heightened challenge for successful psychological treatment because of the sensitive content of obsessions. Avoidance of those topic areas by therapists can be perceived by patients as religious intolerance or cultural bias and negatively affect treatment outcome (Horwitz et al., 2019; Osborn, 2008). However, therapists often perceive that their treatment is best limited to psychological processes and neglect to incorporate their patients'

religious beliefs in discussion of their symptoms. This can cause a disconnect in the therapeutic alliance.

The professional literature shows that obsessive–compulsive disorder (OCD) is not caused by religion; thus, clinicians’ removal of religion or religious literature (i.e., the Bible) from the therapeutic process in the name of symptom reduction is unnecessary and may result in lack of engagement in treatment or dropout in religious clients. Cognitive behavioral therapy (CBT) is efficacious for the treatment of OCD, but many Christian denominations are wary of psychological interventions due to fears that their beliefs will not be respected. (Leins & Williams, 2018, p. 112)

The APA’s Code of Ethics “Principle E: Respect for People’s Rights and Dignity” mandates respect for cultural diversity as a key feature of effective, ethical therapy:

Psychologists are aware of and respect cultural, individual, and role differences, including those based on age, gender, gender identity, race, ethnicity, culture, national origin, religion, sexual orientation, disability, language, and socioeconomic status, and consider these factors when working with members of such groups. Psychologists try to eliminate the effect on their work of biases based on those factors, and they do not knowingly participate in or condone activities of others based upon such prejudices.

(APA, 2017, p. 4)

To meet the spirit of this principle, it is incumbent on psychologists to educate themselves on the basic doctrines of major religions and to incorporate their patients’ cultural and religious beliefs with respect and sensitivity when their patients wish to include such discussions in their treatment (American Psychiatric Association, 2017, 2022). In treating scrupulosity, it would be especially difficult to address the obsessive–compulsive process

without discussing the content of those obsessions and compulsions (Ciarrocchi, 1995; Osborn, 2008).

Effective, experienced psychologists recognize the need for some basic expertise in understanding the nuances of certain religious and moral beliefs that are commonly seen in therapy (Leins & Williams, 2018).

Given the efficacy of evidenced-based approaches to reduce symptom severity, the centrality of the Bible in the lives of many Christian clients, and the current divergence between evidence-based approaches and pastoral care, specific ways the Bible can be incorporated into the therapeutic process is needed as a means of connecting with this population. (Leins & Williams, 2018, p. 112)

Though one cannot be expected to be familiar with all the details of diverse beliefs within a multitude of sects of the major world religions, at a minimum a spirit of openness and curiosity is helpful in the pursuit of respect for their patients' culture and individual beliefs . Cultural humility is an effective stance to take with any such sensitive issue, and as a therapeutic stance for addressing microaggressions. "Subtle communications that send messages of insensitivity, disrespect, or insult to a person based on his or her cultural background," and a type of "alliance rupture in which clients attribute the offense to an aspect of their identity" can be avoided more easily or addressed quickly and effectively when they do occur (Davis et al., 2016, pp. 483–484).

Rightly Dividing Psychological Illness from Spiritual Influence

The Catholic Church has continued to this day to provide intervention through deliverance ministry from supernatural spiritual forces harassing and oppressing the faithful (Gallagher, 2020). As seen in the persistence of New Age and superstitious belief among people of all different cultures, belief in the existence of supernatural spirituality has never waned

(Granqvist et al., 2007). As psychiatry and psychology spread understanding of mental illness in general and OCD, in particular, the church recognized that confirming the supernatural origin of disturbing symptoms is good practice. As interest in demonic possession rapidly increased since the success of the 1970s popular movie, *The Exorcist*, which was loosely based on an actual case of exorcism of a young boy in the 1950s, the church has had a small but growing number of full-time priests practicing deliverance from spiritual oppression and sometimes, rites of exorcism from demonic possession. What was once thought a rare occurrence has become so widely known and yet misunderstood that many people desperate for relief from their suffering have created a huge demand for the priests' services. Wisely, the church has collaborated with psychiatrists and psychologists to help determine when mental health care would be the more appropriate intervention.

Richard Gallagher MD is one such psychiatrist who has assisted the Catholic Church in this effort and written of his experience providing medical expertise while learning to discern spiritual from psychiatric conditions. His procedure is the same as with clinical assessment of any patient reporting mental health symptoms. Wisely, he stays within his scope of practice. Though he readily attests that some cases he cannot determine are psychiatric in origin, he leaves that to the church to address.

Interestingly, Dr. Gallagher's motivation to write of his personal experience comes from his background in psychiatry moreso than his faith as a practicing Catholic. He believes that mental health providers are reluctant to admit when a patient is beyond their help due to a persistent stigma on supernatural spirituality as originating from an un-scientific and fearful ignorance of psychological illness. His 25 years of experience helping the church, as well as his credentials as a professor of psychiatry at New York Medical Center and faculty of Columbia

University speak to his expertise. Near the end of his career, and with the passing of the priest with whom he worked most closely, he felt compelled to document his knowledge for future generations. His courage to risk professional censure to address this subject so fraught with misunderstanding and overwrought portrayal in entertainment is admirable. Still, some of the cases which he reports he determined were of non-psychiatric origin are quite dramatic (Gallagher, 2020).

As it pertains to scrupulosity, Dr. Gallagher notes that between personality disorders and OCD, there is a large group of people who are “often highly conscientious individuals who are greatly troubled by feelings of violence and inner destructiveness. Similarly, sacrilegious and blasphemous thoughts frequently disturb them” (p. 119). These include individuals with OCPD and Borderline Personality who are greatly emotionally disturbed, as well as those with more severe mental illness. As symptoms intensify, those with both the less and more serious conditions are increasingly likely to attribute these cognitions as originating outside themselves due to the conflicting values with their own beliefs that these thoughts provoke. As in each of these conditions without a focus on religious content, insight varies.

In pronounced states, they may feel like harming, even killing, individuals they love, including children. They may also be filled with images of disfiguring or performing other inappropriate actions toward religious objects, statues, or icons. Such thoughts horrify them. I once treated a man with unsettling and obviously compulsive thoughts of murdering his son. While obsessional individuals may believe they are the targets of a demonic assault, they are suffering from a common psychiatric condition. (Gallagher, 2020, p. 119)

In most cases, OCPD, BPD, OCD, and even schizoaffective disorder or schizo-obsessive syndromes are readily apparent. The good priest need not intervene. Symptoms of mental illness are far more common than those of a supernatural origin, and those that are not psychiatric in origin are best left to experts in that domain (Gallagher, 2020).

CHAPTER V: INTRAPERSONAL FACTORS INFLUENCING DEVELOPMENT OF OCD AND SCRUPULOSITY

Cognitive Features of OCD

Earlier theoretical work on OCD focused on the many cognitive characteristics noted across a wide range of patients with OCD. After Behaviorism defined the learning theory conceptual notion of how obsessions and compulsions are acquired, research on these characteristics culminating in ongoing development of the cognitive theory of OCD (Aardema et al., 2008; Abramowitz et al., 2009; Coughtrey, Shafran, & Rachman, 2014; Doron & Kyrios, 2005; Rachman, 1997, 1998; Rachman & de Silva, 1978; P. M. Salkovskis, 1985; P. M. Salkovskis et al., 1995; P. M. Salkovskis et al., 1999). Each of the cognitive characteristics of OCD that has been identified has its own body of research placing it within the overall spectrum of obsessive–compulsive disorders. And, unfortunately for the study of scrupulosity, not as much has been discovered about the nature of these characteristics for religious and moral obsessional content making it necessary to review the research in each area and infer relationships where they have not been formally empirically established. Lest we forget how very new is the study of psychology in human history, much work is still to be done.

Obsessions and Intrusive Thoughts

Early OCD researchers in the 1970s and 1980s identified that “unwanted, distressing intrusive thoughts, images and impulses” (Clark & Purdon, 1995, p. 967) are a normal occurrence in 80–90% of the population (Rachman & de Silva, 1978). Researchers more recently identified a need to broaden their research pool to account for cultural diversity around the world (Radomsky et al., 2014). A recent large study of 777 university students across six continents and 13 countries investigated prevalence and type of intrusive thoughts. Unlike previous studies,

Radomsky et al. (2014) sought to exclude self-reports of worry and rumination that may be difficult for participants to distinguish and could confound their data. They invested a lot of time and resources in the quality of the results by using a semi-structured interview and qualified interviewers. They found 93.6% reported that in the past three months, they had experienced at least one unwanted mental intrusion. “Doubting intrusions were the most commonly reported category of intrusive thoughts; whereas, repugnant intrusions (e.g., sexual, blasphemous, etc.) were the least commonly reported by participants” (Radomsky et al., 2014, p. 269). The least prevalence reported was in Greece (81.2%) and the highest were a shocking 100% in Iran, the United States, and Canada. Italy was 88% while the other nine countries all reported results well over 90%. Clearly, intrusive thoughts are a normative human phenomena, and though they are typically anomalous to normal thought patterns, they are not in and of themselves a sign of psychopathology (Radomsky, Alcolado, et al., 2014).

Despite the commonality of the experience of intrusive thoughts, the types of thoughts Radomsky et al. (2014) found were variable. “By-and-large, doubting intrusions were the most common, while UITs (unwanted intrusive thoughts) regarding sex, religion, and immorality were the least common. A surprisingly large proportion of “other” UITs were endorsed” (Radomsky et al., 2014, p. 273). Further, the highest category of “most-distressing intrusion” was pathological doubt, “while sexual and religious/immoral MD-UITs were the least commonly reported” (Radomsky et al., 2014, p. 274). “Repugnant UITs (e.g., sexual, immoral, blasphemous) were the least frequently reported, but among the most difficult to control. Conversely, doubting UITs were the most commonly reported, but the easiest to control” (Radomsky et al., 2014, p. 276). Considering these results were gathered in face-to-face questioning, and response bias was not

evaluated, it seems likely that there was some under-reporting of taboo thoughts confounding the data. The authors account for this rather nonchalantly.

Although it is possible that some of these differences relate to varying degrees of comfort participants may have felt about reporting repugnant vs. other UITs, they also lend themselves well to differences in cognitive-behavioural theories of, and interventions for OCD. (Radomsky et al., 2014, p. 276)

But clearly there is a big difference in the subjective experience of highly distressing scrupulosity-type thoughts and easily dismissed doubt. The cognitive theory of obsessions approached such intrusive thoughts as most salient when the content of the thoughts were “negative, automatic thoughts of loss and failure or harm and danger associated with depression or anxiety” (Clark & Purdon, 1995, p. 968). Such highly distressing thoughts are more likely to develop into obsessions than less distressing thoughts (Gallagher, 2020; Pascual-Vera et al., 2022) and those with blasphemous, sexual, or violent content moreso than other types of highly distressing thoughts (Ali et al., 2021).

Intrusive thoughts are likely to become obsessional when “a kind of repetitive internal negative discussion about unimportant issues” to which the patient is oversensitive and “tend(s) to interpret these signs negatively” begins to become a repetitive pattern of perseverative thinking without a resolution (Mikaeili et al., 2019, p. 70). “Furthermore, preservative thinking is related to repetition of the feelings arising from the lack of solving the problems ... and contributes to worsening the obsessive symptoms” (Mikaeili et al., 2019, p. 70).

While the content of obsessions is as varied as the people who experience them, research has clustered obsessions into four major types: 1) Contamination, concerns about germs, cleanliness and illness, 2) Harm avoidance due to feeling overly responsible for harm to oneself

or others, 3) Unacceptable or forbidden thoughts that are antisocial, sexual, violent, or blasphemous, and 4) Fixations on orderliness, such as symmetry or aligning multiple items, organizing by color or some other feature of the object, and a felt sense of completeness (Benatti et al., 2020).

While these clinical descriptions and categories are accurate, they do not convey the self-alienating, escalating horror of the experience for those who are in scrupulosity's grip. "Thoughts inciting religious and moral dilemmas and guilt dominate the symptoms, inducing great distress in the patient as they go against the very fundamentals of their upbringing, beliefs, and traditions" (Ali et al., 2021, p. 258). Once the obsessive-compulsive cycle has taken hold, obsessional content can seem to wander to any subject that is potentially alarming one would wish to avoid. With scrupulosity, any of the other obsessional domains such as contamination obsessions can coexist with unwanted thoughts and often do. Forbidden thoughts, along with harm obsessions are reported to be the most distressing due to the increased emotional intensity of the potential outcome being feared (Foa & Kozak, 1986).

Thought Control Strategies

Thought control strategies are attempts to manage one's uneasiness due to unwanted mental intrusions. Wells and Davies (1994) postulated that various types of obsessions would elicit different mental strategies to control these intrusive thoughts such as distraction, reappraisal, social engagement, self-punishment, and worry. Distraction works by purposely shifting attention away with a different, often unrelated, less upsetting thought.

Reappraisal is similar to cognitive restructuring: an attempt to decrease emotional arousal by either decatastrophizing the consequences or likelihood of it occurring. Reappraisal can also

reduce the personal salience of the thought, instead of further analyzing the meaning of the thought. Too much self-reflection could amplify its personal salience.

Discussing it with others could serve to reduce the weight of one's overly strong sense of responsibility, as well as reassure anxiety. Anger at oneself is a type of self-punishment for having such intrusive thoughts at all. Worry over potential negative effects of the thought actually occurring would increase rumination by consciously dwelling on the thought and often leads to overestimations of threat (Amir et al., 1997).

Worry and anger both increase the likelihood of developing psychopathology, including depression, post-traumatic stress symptoms, and obsessive compulsive disorder (Moore & Abramowitz, 2007). Worry and self-punishment contribute to high emotional salience of intrusive thoughts and the anxiety it engenders, and can lead to feelings of shame and guilt for having the thought in the first place (P. M. Salkovskis, 1985).

The choice of thought control strategies is "related to one's specific beliefs about the presence and meaning of intrusive thoughts" (Moore & Abramowitz, 2007, p. 1950). Worry and punishment are associated with "intrusive thoughts are threatening, significant, or otherwise personally meaningful" (p. 1950). Amir et al. (1997) found that OCD patients relied on maladaptive methods to control their thoughts more so than non-patient controls. They mainly used reappraisal, worry, punishment, and social control instead of distraction. They tended to use worry instead of distraction to replace the unwanted thought with another worry rather than a calming, reassuring thought.

Punishment and worry predicted the presence and severity of OCD symptomatology due to a stark contrast in use between the two groups OCD patients tended to use distraction far less than non-affected subjects, and punishment far more (Amir et al., 1997). "It is unclear whether

obsessive–compulsive disorder leads to the use of certain strategies and prevents the use of others or vice versa” (Amir et al., 1997, p. 3). Regardless of the true directionality of the association, “punishment and worry seem to be particularly dysfunctional strategies for managing obsessions” (Amir et al., 1997, p. 3).

Neutralization is an attempt to replace a troubling thought with another thought of the opposite result, which then serves as an escape from needing to punish oneself for the bad thought. It also helps to reduce excessive worry.

Neutralization, either as compulsive behaviour or cognitive strategies (e.g., thinking a “good thought” after having a “bad thought”) can be understood easily in this context as attempts to put things right, and avert the possibility of being blamed by self or others. (P. M. Salkovskis, 1985, p. 574)

The distress brought on by personally relevant intrusive thoughts can be effectively neutralized in the short-term by performing actions that prevent or undo the perceived harm such as a checking compulsion, or with a psychological technique of using other thoughts to distract and replace the unwanted thoughts, such as thought suppression (Foa & Kozak, 1986; P. M. Salkovskis, 1985). Neither of these responses allows the person to weigh and reject the evidence of the obsession’s personal salience and dismiss the thought as irrelevant and unimportant. When it fails to reduce or dissipate the burden of responsibility the obsessive person feels, the cycle becomes repetitive. Each time an unwanted thought is suppressed, it will become more intrusive. In the long term, neither of the neutralization strategies works as intended (P. M. Salkovskis, 1985).

Thought Suppression

Unwanted mental intrusions (UMIs) are the antecedents of obsessional thoughts (Rachman & de Silva, 1978). It is paradoxical that attempts to dismiss a UMI with thought control strategies cause it to increasingly reoccur. Commonly referred to in psychological research as the “white bear effect,” Wegner et al. (1987) showed the futility of that approach with the experimental induction of the thought of a white bear which participants were instructed to not think about. Paradoxically, trying not to think about it caused thoughts of white bears to increase (Wegner et al., 1987).

In daily life, suppression attempts and subsequent rebounds of thinking could occur repeatedly, escalating in response to each other, and so yield dramatically magnified effects. A person might begin, perhaps only on a whim, to suppress a certain thought. The suppression process might be difficult, but the person could probably arrive at successful suppression in a relatively brief period. Later on, however, some trigger for the rebound occurs and the person becomes involved in an excessive level of rumination. It is at this point that the person becomes alarmed, noticing that an unusual degree of preoccupation is underway. This might produce a newly energized attempt at suppression, only to restart the cycle. Suppression might be yet more difficult at this time, but it could seem to be the only solution. Eventually, pathological levels of obsessive concern could result. (Wegner et al., 1987, p. 12)

Wegner et al. (1987) refocused psychological inquiry on the conscious thought processes involved in obsessions. His results reflect on how these conscious and unconscious processes bolster and persevere obsessions.

Thought suppression thus seems to entail a state of knowing and not knowing at once. Freud (1915/1957) made this strange dissociated state theoretically possible by postulating the unconscious and by further specifying that the unconscious was capable of performing the thought suppression for consciousness. So, although the unconscious could not remove the thought from itself, and consciousness also could not remove the thought from itself, the unconscious could perform this housecleaning for the separate, conscious part of the mind. (Wegner et al., 1987, p. 5)

Wegner described how the conscious and unconscious cueing of obsessions manifests an obsession, concluding “it seems clear that there is little to be gained in trying not to think about it” (Wegner et al., 1987, p. 12).

Rumination and Worry

Persistently negative cognitions and emotional disturbance are commonly seen with OCD. Worry is conceptualized as a ruminative style of thinking that is ancillary to the type of intrusive thoughts experienced in OCD (Fergus & Wu, 2010). It is differentiated by the volitional source of the thoughts intended to problem-solve an issue that could have one or more negative outcomes (de Jong-Meyer et al., 2009) whereas intrusive thoughts arising from within oneself stem from unconscious processes that are at least partially correlated to frequency of rumination (Fialko et al., 2012; Freeston et al., 1992) Worry and rumination are somewhat under one’s conscious control, though like any unpleasant thought, the urge to suppress them will make them more persistent. Thoughts become focused unproductively on personal issues, and have the ego-dystonic nature of intrusive thoughts.

Rumination is focused on issues of self-worth, meaning, and loss, whereas worry concerns anticipated threats. Where the conscious motive of ruminating is to gain insight

in events, the motive to worry is to anticipate and prepare for threats. Finally, the nonconscious motive of rumination is to avoid aversive situations and the responsibility to take action, whereas for worry it is to avoid core negative affect and painful images. (Dar & Iqbal, 2015)

The negative emotional valence of rumination increases the degree of anxiety felt with such thoughts. “Anxiety is thought to occur when an information structure that serves as a program to escape or avoid danger is activated” (Foa & Kozak, 1986). Anxiety is heightened in OCD when feeling vulnerable or ambivalent and fear or distrust of oneself is triggered (Jaeger et al., 2021; Melli et al., 2016). Apprehension of what one’s unacceptable thoughts mean about oneself is a major source of rumination and worry, particularly “a perceived morally deficient, fractured or feared self” (Jaeger et al., 2021, p. 1).

Dar and Iqbal (2015) found that worry and rumination shared a substantial variance both with Generalized Anxiety Disorder and with OCD likely due to the shared characteristic of being “a repetitive form of thinking as a coping mechanism to avoid or control potentially aversive situations” (Dar & Iqbal, 2015, p. 876). They theorized that the forward-looking nature of worry is more consistent with affective disorders, specifically depression which was seen in the highest total variance in this study. While rumination is focused on past events with implications for one’s self appraisal, it was not clear if these differences in past- and future-focus were the cause of the failure of rumination to mediate either GAD or OCD through worry (Dar & Iqbal, 2015).

The high variance of both worry and rumination for both OCD and GAD suggest potential hidden factors acting on this relationship. Two cognitive factors found to mediate the intensity of rumination and worry may hold a key. In a study on depression, de Jong-Meyer et al.

(2009) found intolerance of uncertainty and belief in the importance of thoughts both magnified worry and rumination.

The metacognitive belief that worrisome thoughts are functional in preventing negative experiences contributed to depression. This finding leads to the clinically important conclusion that what people believe they accomplish by persistent thinking might be more important in determining affective psychopathology than engaging in worrisome or ruminative thinking. (de Jong-Meyer et al., 2009, p. 550)

Interpreting this in light of Dar and Iqbal's (2015) finding of a three-way interaction with worry/rumination, depression and OCD, it seems probable that such cognitive factors also intensify the effect of worry/rumination on OCD. Future research is still needed to determine if rumination would be an effective cognitive process to target for reducing OCD symptoms, and scrupulosity in particular, though it seems clear that it would be helpful to target rumination in addressing comorbid depression which could then have an effect on reducing overall distress.

Surreptitious Suffering and Reluctance to Seek Treatment

OCD has been labelled "a hidden epidemic" due to the often gradual onset of symptoms that over time becomes a major focus of OCD patients' days. It is not uncommon for patients with OCD to become very sneaky in concealing their compulsive actions to avoid detection and stigma as they "endure endless hours of persistent intrusive thoughts each day" (Jenike, 1989, p. 539).

Freud remarked "Sufferers from this disorder are able to keep their affliction a private matter. Concealment is made easier from the fact that they are quite well able to fulfill their social duties during a part of the day, once they have devoted a number of hours to their secret doings, hidden from view." (Jenike, 1989, p. 540)

The private nature of rumination and obsessions and their stigmatizing effect make it likely that people with OCD will suffer in silence until they are either directly asked or their torment becomes so all encompassing that they at last make the decision to seek help (Jenike, 1989).

How can so prevalent a disease remain largely hidden from physicians? Even among spouses, one may have no idea that the other spends hours every day performing rituals. The need for vigilance on the part of physicians is illustrated by a recent study in which 37 percent of the patients who presented to a dermatology clinic with nonspecific dermatitis had obsessive–compulsive disorder, although none had ever sought treatment for it. (Jenike, 1989, pp. 539–540)

Both mental health and medical providers are well-positioned to discover obsessive–compulsive symptoms when the patient presents with another concern. The onus is on providers to recognize signs of these issues from among other common presenting problems and ask the right questions, in the right way as to be trusted with the answer.

Pathological Doubt

Another key feature of obsessional thought is the inability to settle one's mind on a factual conclusion due to persistent doubt. What should be a straightforward decision determined by having enough evidence to establish factual veracity and, hence, belief, is displaced by a persistently nagging feeling of uncertainty and apprehension no matter how much reassurance or additional evidence is supplied (Abramowitz et al., 2002). Pathological doubt can appear as an inability to reach closure in routine tasks. Consider the cases of an internal medicine physician who called the lab up to 15 times to confirm the same test results, or a pathologist who spent hours repetitively reviewing the same slides off tissue from biopsies to determine if there is any

sign whatsoever of cancer (Jenike, 1989). How difficult would it be to make routine but high-risk decisions with potentially catastrophic consequences for errors under the weight of such persistent doubt? “Careers end and families disintegrate as a result of this often unrecognized but treatable disorder” (Jenike, 1989, p. 539).

Neuroscience research has shown that people with OCD have deficits in memory processing when strategic information processing is required. They tend to over-focus on less important details and miss the overall context of the task (Olson et al., 2016). Source memory, the specific context of a learning occurrence, maybe especially relevant to OCD (Olson et al., 2016). In experimental inductions of multiple repetitions of a discrete task, each recurrence of the task became less memorable on its own. An experiment manipulating source memory showed that repetition of compulsions leads to increased doubt because each individual act of checking can interfere with clear recall of the action and inhibit gaining a sense of certainty that a task was completed based on memory alone (C. A. Olson et al., 2016).

Poor source memory may contribute to doubt, which in OCD is often characterized by a feeling of uncertainty that an action aimed at preventing harm has been completed.

Compulsive checking may further contribute to doubt related to memory as checking leads to the creation of multiple episodes under very similar contexts. (C. A. Olson et al., 2016, pp. 53–54)

C. A. Olson et al. (2016) found key neuroimaging differences in areas of the brain associated with executive function such as planning, anticipation of actions, cognitive flexibility, and even episodic memory retrieval. “For individuals with OCD, activation in the premotor/Dorsal Lateral Prefrontal Cortex and PCC (posterior cingulate cortex) during source

retrieval is associated with greater obsessional doubt regarding responsibility for harm and concerns about past mistakes” (C. A. Olson et al., 2016, p. 59).

Obsessional doubt may be further compounded by the negative reinforcement in which the feared outcome does not occur. This gap in experience creates a further gap in episodic memory, which then increases doubt as to whether the feared outcome has been avoided, perhaps leading to a persistent feeling of “waiting for the other shoe to drop.” Pathological doubt has been strongly correlated both to intolerance of uncertainty and a sense of incompleteness (Coles, Frost, Heimberg, & Rhéaume, 2003; F. Mancini et al., 2008).

Sense of Incompleteness

A sense of incompleteness is a dimensional trait shared between OCD and OCPD, albeit in a less debilitating form for the personality disorder. Incompleteness is theorized to be a core motivational construct that predicts OCS and has been shown in structural equation modeling to represent unique variance from the closely related construct of Harm Avoidance (Summerfeldt, 2004; Summerfeldt et al., 2014).

Individuals with OCD often report having “not just right” experiences (NJRE), described as “the feeling that things are not the way they should be”(Coles, Frost, Heimberg, & Rhéaume, 2003; Coles, Heimberg, Frost, & Steketee, 2005).

A not just right experience (NJRE) is an uncomfortable sensation that signals and represents a perceived mismatch between the state of the world or of one’s own performance and the individual’s accepted standards...Until this sense of rightness is reached patients may be plagued with a “not just right experience.” (Mancini et al., 2008, p. 163)

People with OCD experience this uncomfortable sensation of NJRE more frequently and intensely. Obsessions and compulsions, especially order and symmetry rituals, are intended to decrease such negative feelings. “OC individuals often describe the feeling of being driven to perform an action until this uncomfortable sensation is reduced” (Gangemi & Mancini, 2017, p. 161).

The stable, persistent feeling of guilt that is an affective trait in some people rather than a passing emotional state has been found to be higher in individuals with OCD. Experimental induction of guilt has also resulted in increased NJRE in a non-clinical sample. “Induced guilt was followed by stronger feelings of things being not just right only in high-trait-guilt participants. In the low-trait-guilt participants NJRE was weaker” (Mancini et al., 2008, p. 162). Mancini et al. also found a significant relationship between NJRE and the “washing and precision” features of OCD.

A sense of incompleteness is often reported by people with scrupulosity who engage in compulsive prayer until a feeling of having accomplished something occurs (Abramowitz et al., 2002).

Common religious compulsions include excessive praying, excessive attention to minor details of religious tradition, and seeking reassurance from clergy or loved ones about religious matters. Frequently, these compulsions are performed in a rigid, stereotyped manner, and are often repeated until the person’s anxiety diminishes or the behavior feels as if it has been done “just right.” (Abramowitz et al., 2002, p. 826)

The sense of incompleteness could lead to excessive reassurance-seeking in an effort to achieve the “just right” feeling in the absence of a compulsion that could provide that reassurance (Jaeger et al., 2021; Mantz & Abbott, 2017). A strong correlation between NJRE and

fear of guilt is theorized to result in compulsive behaviors intended to reduce the likelihood of actually being guilty (Gangemi & Mancini, 2017). “The results of two experiments found that fear of guilt actually influences the sensation of things being not just right” (Gangemi & Mancini, 2017, p. 161).

A further cognitive distortion may result in confusion between the emotional experiences of feeling fearful of guilt in the future if the obsession actually occurs versus the actual guilty feeling that occurs when you really have done something blameworthy (Gangemi & Mancini, 2017). The experience of feeling guilt is perceived as real rather than hypothetical. Such guilt can induce a great deal of emotion so that even though the actual event has not yet and might not occur; experientially, it feels as if it already has. This is a cognitive appraisal error that magnifies distress and also blurs the line between reality and possible future realities. The person with OCD acts “as if” their fears are actualized.

Faulty Inductive Reasoning

This “as if” feeling occurs when faulty reasoning determines the likelihood of a distressing, though as yet unrealized, negative outcome. The person with OCD experiences a real guilty feeling as a consequence of their obsession before anything has occurred in reality. It feels inevitable. This blurring of reality boundaries is a schizotypal symptom that has been shown to increase along with loss of insight and is a mark of severity of OCD (Aardema et al., 2006, p. 214). But to arrive at this faulty conclusion, the factual information available in the present is disregarded in favor of a hypothetical outcome that is possible, but is unlikely due to that present evidence. “Inferential confusion includes inverse inference—the tendency to negate reality in favour of a hypothetical possibility despite proof to the contrary” (Aardema et al., 2006, p. 213). The undesirability of the feared outcome seem to magnify its likelihood of occurring. But, of

course, this is not true. “Obsessions are not normal random thoughts, but instead are inferences generated through inductive reasoning” (Nikodijevic et al., 2015, p. 164).

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. (Nikodijevic et al., 2015, p. 164)

Adding on to the cognitive theory of OCD, Aardema et al. (2008) showed that a faulty reasoning process underlies OCD cognitions that further reinforces pathological doubt. “A complementary model of OCD, termed an inference-based approach (IBA) explicitly focuses on process characteristics in OCD and views obsessions as the result of a faulty reasoning process” (Aardema et al., 2008, p. 227). This approach is basically a type of emotional reasoning *ex pro forma* from the fear of the undesired outcome where the emotional response is taken as factual evidence. It is related to TAF and magical thinking in its illogical reasoning.

Behavioral Compulsions and Neutralizing Strategies

In a fruitless attempt to rid themselves of persistent obsessions and regain a sense of control, OCD sufferers employ neutralizing strategies meant to dismiss the thought, or to symbolically undo or magically prevent an action from occurring (Belloch et al., 2015). There are two main types of neutralization strategies, compulsive behaviors that are overtly observable and those which occur only covertly in the sufferer’s internal thought process. Overt strategies include such compulsions as ordering, checking, washing, or seeking reassurance. And covert strategies can include unobservable internal thoughts such as “searching for “good” words, images or thoughts, repeating certain words or sentences, counting, praying, trying to imagine

figures or pictures, passive or active avoidance, and trying to stop and/or suppress the unwanted thoughts, among others” (Belloch et al., 2015, p. 180).

In many people with OCD, both covert and overt neutralizing strategies are ritualized and/or compulsively repeated. Sufferers often find it necessary to evolve their neutralizing strategies as repetition leads to habituation and they find less and less relief from their usual compulsions (Belloch et al., 2015). However, in OCD it is paradoxical but self-evident that these strategies meant to ensure safety are anything but. Safety behaviors such as checking, seeking reassurance, and even avoidance strategies meant to mentally dodge the source of fear, lead to exacerbation of safety fears (Van Uijen & Toffolo, 2015).

Safety behaviors cause a misattribution of safety, which prevents the acquisition of information that disconfirms inaccurate threat beliefs...Even in healthy individuals, the use of safety behavior leads to threat expectations to objectively safe stimuli...and seems to increase anxiety not only by misattributing safety to the execution of this behavior, but also by directly attributing danger to safe situations. (Van Uijen & Toffolo, 2015, pp. 521–522)

This, in turn, leads to acquiring even more strategies for managing fear. As OCD severity rises, so does self-stigma. People with OCD commonly subvert their ritualized compulsions and begin to substitute mental compulsions in an attempt to avoid detection and, they fear, public scorn (Belloch et al., 2009; Wong & Heeren, 2021).

Covert Compulsions

Covert neutralization strategies have been mislabeled “Pure O” in popular literature as a description of an obsession without any overt observable compulsion (LeJeune, 2023; Williams et al., 2011). Sometimes the shame a person with OCD feels makes them reluctant to recognize

or admit covert compulsions even to themselves, much less others. Without an overt or covert compulsion, these obsessive thoughts would simply be persistent ruminations.

‘Pure O’OCD, is a subtype of OCD that is characterized by intrusive thoughts, images, or urges without any visible symptoms. These “hidden compulsions” can include constant reassurance seeking, obsessive regret or worry, and may involve avoidance, excessive preparation, and thought rituals. (LeJeune, 2023)

There is a strongly compulsive component to reassurance seeking that is often misconstrued as obsessional rather than a mental compulsion. Such mental compulsions “have traditionally been omitted from prior factor analytic studies” (Williams et al., 2011, p. 1), but “these obsessions were factorially associated with mental compulsions and reassurance-seeking” (p. 2).

OCD patients typically considered pure obsessional—those with impulsive aggressive, sexual, and religious obsessions—engage in mental rituals and demands for reassurance. We arrive at this hypothesis because both reassurance-seeking and mental compulsions are fairly common, and the unobservable nature of mental compulsions may cause them to be missed or mistakenly classified as an obsession. (Williams et al., 2011, p. 3)

Study replication is needed to confirm scrupulosity encompasses “Pure O” obsessions, covert mental compulsions, and reassurance seeking along with the taboo thoughts content domain though “a growing body of research that has supported the association” (Williams et al., 2011, p. 7). The authors concluded that there are likely other compulsive actions, “such as the need to touch, tap, or rub; rituals involving blinking or staring; eating behaviors; list-making; and superstitious behaviors” that should be included in factor analytic studies for OCD “to better determine the phenomenology of the various symptom dimensions” so that future research can

focus on “an examination of the outcome of various treatment modalities associated with this group” (Williams et al., 2011, p. 7).

Reassurance Seeking

People with OCD often plague those around them with repetitive bids for reassurance which do not allay their worries. This behavior is exacerbated by intolerance of uncertainty and it significantly intensifies worry and rumination (Olson et al., 2016). Reassurance seeking has been theorized to serve an additional purpose of spreading the responsibility for a negative outcome should the feared outcome not be successfully prevented. It is a strategy often employed with authority figures whose expertise is sought repeatedly but not accepted (P. M. Salkovskis, 1985).

The patient who has thoughts of harming others may somewhat diminish their feelings of responsibility by making sure that others know, often in great detail, the content of their worries or even carry out actions for them. So, if the doctor, psychologist or relative knows that the patient has touched a potential source of disease and then something likely to be touched by others, then they share the responsibility to some extent. (P. M. Salkovskis, 1985, p. 574)

Therapy with obsessional people can be a challenge to navigate when the patient is clearly distressed and adamant about seeking reassurance. “Frequently, reassurance seeking adopts subtle guises, and may not be recognized as a form of neutralization by patient or therapist” (Salkovskis, 1985, p. 574). Offering reassurance is tempting because it would reduce the patient’s anxiety temporarily, and also reduce the therapist’s worry about their efficacy with the patient. However, it would only increase the worries of both patient and therapist in the end.

Excessively seeking reassurance has been shown to functionally operate similarly to checking compulsions as a behavior driven by intolerance of uncertainty, pathological doubt, and

a feeling of incompleteness. “Reassurance seeking “might be best understood as a “backup-to-checking strategy”” (Parrish & Radomsky, 2011, p. 55). Instead of seeking reassurance, checking sources of potential harm may be preferred when they feel increased responsibility for preventing it. “Particularly when perceived responsibility is high, reassurance seeking behaviour may be reserved for situations in which checking would be difficult (Parrish & Radomsky, 2011, p. 55).

Reassurance seeking is a kind of “checking by proxy” that “has been found to breed further reassurance seeking behaviour and to contribute to interpersonal rejection” (Parrish & Radomsky, 2011, p. 45). After repeatedly seeking reassurance from others and losing their goodwill, people with OCD may internalize their reassurance seeking by asking themselves the same questions. Stevens and Smith-Schrandt (2023) report the scrupulosity symptoms of a 12-year-old boy with generalized anxiety from the age of five. He frequently vomited when his worries got the best of him, so he began compulsively seeking reassurance about details of the school day so nothing would take him by surprise. For example, he needed to know before a field trip exactly where the garbage can would be at lunchtime.

Such reassurance seeking mixes intolerance of uncertainty and an increase of his perfectionistic fears of making a mistake (Stevens & Smith-Schrandt, 2023). He “began finishing most of his sentences with “I guess,” “I think,” or “I don’t know,” because he wanted to be certain that he told the absolute truth” (p. 13). He also began to compulsively report other children’s misbehaviors that he felt were wrong, such as littering and smoking, with little concern for the consequences of his social missteps. At other times, he apologized excessively to his peers to their great annoyance as he tried to avert social rejection. Obsessive fear of mistakes led him to ruminate on his day and compulsively confess “bad thoughts” to his mother at night,

seeking her reassurance that he was not acting immorally. However, he was not easily convinced of her responses and would mentally rehearse thoughts about why he was actually a “good” kid, in an attempt at self-reassurance and thought replacement. He did not trust his self-perception and was confused about his emotions.

His OCD symptoms worsened with stress. “One night he was extremely frustrated with his worries and shared his belief that “my thoughts will only go away if I am dead”” (Stevens & Smith-Schrandt, 2023, pp. 12–13). Clinical presentations with this level of complexity and elevated affect are common in OCD treatment. It is easy to understand why the temptation to reassure this boy’s distress might be difficult for a therapist to resist.

Both checking and reassurance-seeking are perpetuated by a cycle of negative reinforcement in a one-step-removed fashion from seeking proof oneself. Parrish and Radomsky (2011) theorized that though they serve similar functions, people with OCD may favor reassurance seeking over checking for themselves when the perceived threat is greater than it is tolerable to them to manage their distress alone. Contrary to their hypothesis, Parrish and Radomsky found that “perceived responsibility did not influence participants’ urges to seek reassurance” and it is possible that reassurance seeking is not intended “to spread responsibility for preventing harm to others” (Parrish & Radomsky, 2011, p. 55), though an increase in detected threat does increase both checking and reassurance-seeking behaviors. “Perceived threat and responsibility for preventing harm appeared to act as “cognitive multipliers” for compulsive urges, as manipulations of these variables significantly influenced participants’ anxiety, urges to check, and (in the case of threat only) urges to seek reassurance” (Parrish & Radomsky, 2011, p. 55).

Reassurance seeking can become highly ritualized and compulsive. “Reassurance may not be “accepted” unless it is provided a certain way or a certain number of times”; it is “not motivated by the desire to solicit novel information,” and “can place considerable strain on interpersonal and romantic relationships, as friends and significant others may become irritated with the unrelenting requests for reassurance” (Parrish & Radomsky, 2011, p. 45).

Further, reassurance seeking can be so annoying that family members may become more and more vague and exasperated in their responses due to fatigue (Parrish & Radomsky, 2011). However, increased ambiguity in responses only increases anxiety and a compulsive drive for seeking reassurance.

OCD sufferers may experience considerable distress if the reassurance provider displays any signs of irritation or annoyance with their repeated requests for reassurance (“How many times do I have to tell you ... I always lock the door before I leave the house! Why would I forget today?”), which may lead to further pleas for anxiety-reducing feedback. (Parrish & Radomsky, 2011, p. 56)

Religious Rituals and Compulsions

Religion has much it can inform us about the symbolic ways that humans express their need to control and determine outcomes (Viviers, 2012). “Rituals, borne out of our embodied practical reason, are deeds that are counterintuitive in terms of cause and effect” (Viviers, 2012, p. 1). Religious rituals are, by design, symbolic.

From a cognitive point of view, two kinds of religious rituals can be identified: special agent rituals, where superhuman agents act on human patients (once-off, highly emotional; e.g., initiations, weddings) and special instrument and patient rituals, where human agents act on superhuman patients (repeated, less emotional; e.g., sacrifices, Holy

Communion). The idea of “correctness” applies more stringently to the first kind than the second. (Viviers, 2012, p. 1)

Rituals and compulsions blend an internal motivation with an external enactment that is symbolically performed in order to influence what cannot otherwise be controlled (Campbell, 1996; Viviers, 2012). Rituals of religious practice are understood to be symbolic manifestations of a spiritual reality, and are normative cultural acts that should not be considered evidence of mental illness. There is something in the abstract representation of rituals that makes intuitive sense to participants and even bonds them in common understanding of what cannot easily be put into words (Viviers, 2012). Perhaps it is difficult to represent symbolism with words due to a blurring of internal and external reality such as hypothesized by Arzul and Cartwright’s (2016) observation of impaired self-reflective function blurring the awareness of internal and external reality.

Rituals stabilise, reconstitute and replicate our “cosmos” or imaginative worlds as they realign our intersubjective relations. They are tenacious and persistent, because they evoke, usually in an emotional and motivational way, our sense of urgency, our deeply felt need to maintain sound social relations and our intuitive ability to form notions of a counterintuitive world. (Viviers, 2012, p. 1)

Compulsions, on the other hand, share much of the symbolism and enactment, the magical invocation of a desired outcome or avoidance of a feared outcome (Viviers, 2012). However, compulsions are, by definition, not shared. Compulsions are a solitary, personally symbolic performance of a private cognitive process that does not share reality with another. Driven by the need to self-soothe, but unable to come to a conclusive understanding without the dyadic communicative process that evokes a shared reality, the drive to perform the private ritual

over and over without ceasing. A sense of incompleteness haunts all that they do. “The innate human sense of urgency is neatly illustrated by the fact that ritual practitioners “feel” the need to conduct some or other ritual, usually in times of crises” (Viviers, 2012, p. 8).

Neuroscience and Neuropsychology have shown that OCD can be explained by the fact that certain areas of the brain responsible for planning, and the accompanying emotions that they evoke, seem to become over-activated, for instance, the contagion system.

Rituals and OCD are not the same, yet many ritual scripts activate the same contagion system and are therefore just as attention-grabbing and steadfast. This system “tells us” that our life is, to a large extent, at stake here and therefore leaves us no choice than to conduct the required ritual to put things right. (Viviers, 2012, p. 8)

A religious ritual is a symbolic completion of the shared desire to enact one’s will on the external world. The compulsion embodies the same symbol, the same drive to subdue the external reality to cause a desired effect, but without the sense of completion of a successfully completed ritual. Without another to join in a shared ritual and then create a shared reality, there can be no shared mental/emotional/religious experience. Therefore there can be no satisfaction of believing that the symbolic act has had its desired end and has manifested into reality. With no one else to share in the private, personal ritual, it is of no effect. Anxiety will be eased for a time, but will always return because the ritual cannot reach completion when enacted alone. This is why compulsions are so dramatically needful of an emotional sense of satisfaction and so unable to reach it. The intensity of compulsions are driven by a human need for comfort and reassurance from another that it cannot find in enacting the ritual alone (Arzul & Cartwright, 2016).

The relevance for scrupulosity here is heightened moreso than for other OCD domains because it can quite literally be connected thematically to obsessional beliefs.

Cognitive Theory of OCD

From the behavioral school of psychology came a model for obsessive–compulsive behavior that is rooted in learning theory formulated by Mowrer (1960). His work formed the early basis of cognitive theory that has largely theoretical conceptualization of OCD for the past 50 years. Mowrer’s theory is a two-step process involving both classical conditioning of two stimuli and also operant or “instrumental” conditioning (Foa, 2010; Mowrer, 1960). Operant conditioning involves a stimulus-response relationship that implies causality, and which has an inferred result.

According to the prevailing cognitive theory of OCD, the feared outcome becomes paired via classical conditioning with a compulsion performed repeatedly via a cycle of negative reinforcement. The person caught up in the obsessive–compulsive cycle comes to feel a sense of control when performing a compulsion and the feared outcome does not occur, which gives the person a sense of agency when they misattribute the avoidance of the unwanted consequence with their action. Thus, the illusory sense of control is the consequence of the operant conditioning of the obsession and compulsion. What follows is a temporary reprieve from the intrusive fear of the outcome because it has not occurred. In reality, there is no correlational or causational relationship between the compulsion and the non-occurring event, but it provides a felt sense of completion to the person who has paired them cognitively (Foa, 2010).

A neutral event stimulus (conditioned stimulus, CS) comes to elicit fear when it is repeatedly presented together with an event that by its nature causes pain/distress (unconditioned stimulus; UCS). The CS can be a mental event, such as a thought, and/or a physical object, such as a bathroom or trash cans. After fear/anxiety/distress to the CS is acquired, escape or avoidance behaviors are developed to reduce the anxiety. In OCD,

the behavioral avoidance and escape take the form of repeated compulsions or rituals.

(Foa, 2010, p. 199)

Foa used Mowrer's two-factor model as the basis for research developing cognitive behavioral therapy to enhance its use for OCD with the addition of exposure and response prevention (ERP; Foa & Goldstein, 1978). ERP elaborates on learning theory by supplementing the process of desensitization through exposure to the feared stimuli, typically the content of the obsession, that has been avoided by the use of compulsions. With repeated exposure to the conditioned stimuli, the fear response is extinguished and the OCD cycle is broken (Foa, 2010). Since her groundbreaking work developing a more effective and practical treatment for OCD, cognitive theorists have continued to refine our understanding of the cognitive and affective factors related to etiology and maintenance of OCD.

Reactive or Autogenous Obsessions

Adding on to Mowrer's and Foa's work, Rachman (1997, 1998) theorized that OCD obsessions can be categorized as either reactive to a stimulus (such as checking, counting, and ordering) or autogenous in that they arise spontaneously from a mental process (Moulding et al., 2007). People with OCD can and do manifest both type of obsessional thoughts arising from environmental stimuli and internal mentalizations (Moulding et al., 2007). The process of mentalization is an ability "to represent behavior in terms of mental states" (Fonagy & Target, 1997, p. 679). It is a key cognitive skill developed during the early years of life and strongly determinant of the ability to envision one's own and other people's mental states. It has been shown to be impaired in people with OCD (Fonagy & Target, 1997).

Scrupulosity can arise from either a reactive or an autogenous origin. Existing OCD measures are generally more selective for reactive obsessions than for autogenous obsessions

which can lead to under-recognition of the phenomenon. Likewise, existing evidence-based therapies are more efficacious for reactive obsessions. “Symptom-directed behavior therapies would appear to be particularly well-suited to religious compulsions as they neither challenge or analyze the patient’s beliefs and are therefore likely to be more acceptable to the religious patient” (D. Greenberg, 1984, p. 530). However, for autogenous obsessions, as in the case of scrupulosity, some common Cognitive Behavioral Therapy techniques such as de-catastrophizing the outcome of the obsessional belief or encouraging the client to reframe religious obsessions as less important than they currently believe can backfire due to an inherent conflict with religious teachings. This, unfortunately, strengthens the prevalence of intrusions and leads to treatment failure in clinical settings and the symptoms of OCD intensifying for patients (Doron, Moulding, Kyrios et al., 2009; Ferrão et al., 2006).

Ego-Dystonicity of Obsessions

Another typical feature of obsessions is uncertainty as to one’s true feelings about the thought, and fears of the thought being a secret indicator of actual enjoyment despite being morally repugnant. Sometimes people with OCD have a frank recognition, if not outward admission, of enjoying some elements of the thought that are generally considered antisocial, even by the sufferer. “Ego-dystonicity is most apparent in the “responsibility for harm” and “unacceptable thoughts” symptom dimensions, as obsessional thoughts about stabbing someone ... or sexual obsessions ... related to vulnerable victims” (Reuman & Abramowitz, 2018, p. 605). This creates an internal conflict that can add to further distress and self-condemnation for having mentally transgressed commonly accepted norms of morality (L. L. Kang et al., 2016).

The obsessive–compulsive cycle becomes clinically significant when the sufferer repeatedly attempts to block such thoughts, and, when failing to block them, anxiety, doubt, and

feelings of guilt are heightened both in proximity to conscious awareness and in the emotional salience of threat. Hence the intrusive thoughts increase in prevalence, which, in turn, causes greater distress due to the ego-dystonic nature of the content (Lee & Wu, 2019). It is an emotionally and cognitively exhausting cycle which comes to dominate most of one's subjective daily experience and can lead to increasing dysfunction in all areas of a person's daily life (Han-Lee & Siwiec, 2017).

Cognitive Distortions

Rachman's 1997 Cognitive Theory of OCD focused on the core cognitive features of the disease which form the main clinically reported phenomena of a wide variety of obsessions (Rachman, 1997, 1998). "Presently, cognitive psychologists have reached more or less consensus on which phenomena play a role in the occurrence and maintenance of OCD" (van Meegen et al., 2010, p. 275).

Cognitive distortions in OCD have their genesis in fundamentally positive core cognitive schemas of self-reliance and conscientiousness that have been taken too far and are no longer realistic or rational (J. E. Kim et al., 2014; Rachman, 1997; Rector et al., 2009; Riskind et al., 1997). These foundational cognitive biases within OCD have been shown to increase with severity of symptom prevalence. Of the six underlying cognitive factors of OCD derived by factor analysis and confirmed in multiple studies, different people will exhibit a variety of these core cognitive errors that are relevant to their circumstances.

An international group of investigators recently identified six cognitive domains particularly relevant to OCD: inflated responsibility, overimportance of thoughts, excessive concern about the importance of controlling one's thoughts, overestimation of

threat, intolerance of uncertainty, and perfectionism (Obsessive Compulsive Cognitions Working Group 1997, 2001).” (Sica et al., 2002b, p. 814)

More recently, researchers have linked “mental contamination” as another cognitive distortion central to maintenance of scrupulosity (Coughtrey, Shafran, & Rachman, 2014; Millar et al., 2023).

These cognitive distortions are based on functional beliefs such as taking responsibility for one’s actions and that those actions are required in an attempt to satisfy one’s moral code. Ordinarily, such beliefs provide useful heuristics for determining one’s actions and guidance in adhering to a personal moral standard. In OCD, these beliefs are blown out of proportion to the actual effect the person can have on certain actions.

People with OC symptoms appear to use punishment strategies to control intrusive thoughts in part due to maladaptive beliefs about such thoughts; such as the assumption that having negative thoughts is sinful, dangerous, embarrassing, personally significant, and something that warrants control. (Moore & Abramowitz, 2007, p. 1954)

These cognitive distortions provide a sense of control where rationally speaking there may be very little, if any, influence, much less personal control.

Over-Importance of Thoughts

Whether an intrusive thought will evolve into an obsession depends on how often it is experienced, how intense is the emotional reaction to it, and the duration these intrusive thoughts persist (van Meegen et al., 2010). “Intrusions are not pathological in themselves. About 90% of the normal population reports intrusions....Non-OCD patients seem to pay no attention and disregard the majority of their intrusions” (p. 275). However, OCD sufferers are unable to ignore and dismiss as meaningless their intrusive thoughts due to a cognitive appraisal error that the

thoughts in themselves are important to give attention. “I have this thought” means *a priori* that this thought must be important” (p. 275). This error can be expected because the content of mental intrusions is often startling and distinctly unpleasant, not something they would choose to entertain. But the person without OCD can realize quickly that the thought is not something they want to believe or act upon, and mentally dismiss it as just one of the random, non-actionable thoughts that each human has daily (van Meegen et al., 2010).

With scrupulosity, the most common intrusive thoughts involve blasphemy, committing the “unpardonable sin,” harming others sexually, or by acts of violence such as murder, self-harm, or suicidal ideation, and other extreme acts that violate their religious beliefs and personal moral code. Due to the personal salience of these unwelcome thoughts and the importance of faith in their lives, these unacceptable intrusions are inferred to require some restorative act such as prayer or confession in order to regain a sense of purity or safety. Excessive religious acts that become performative and repetitive in an attempt to relieve the fear of sinning rather than spiritually meaningful are a hallmark of scrupulosity (Abramowitz et al., 2002; Siev, Huppert et al., 2017).

However, caution is needed in assuming that overestimation of the importance of thoughts is a stable construct across different populations experiencing OCD (Siev & Cohen, 2007). The specific religious doctrines that ascribe responsibility for mental states varies among religions (Siev & Cohen, 2007).

When presented with hypothetical vignettes, Protestants rated a target person more negatively than did Jews for thinking about committing an immoral action (e.g., thinking about having an extramarital affair), even though the groups did not differ in how they

perceived the moral status of the relevant behaviors (e.g., actually having an affair). (Siev & Cohen, 2007, p. 830)

This highlights the issue that moral judgments are intrinsically related to OCD. The theory of moral judgment and how it differs among people with OCD has not been reported in the literature. Despite its seeming direct relevance to cognitions in scrupulosity, no studies have yet been made of its correlation to this important theoretical base in psychology.

Thought-Action Fusion

Rachman (1971, 1997, 1998) theorized that OCD sufferers share a common belief that thoughts are important to control, as important to control as deliberate actions. Thought-action fusion (TAF) is a common cognitive bias “whereby individuals place undue significance and meaning on the presence and/or content of their unpleasant thoughts and believe that their thoughts can influence reality” (Han-Lee & Siwec, 2017, p. 3528). The obsessive–compulsive person cannot mentally separate the meaning of the thought from the meaning of the thought as it would be fulfilled in action (Shafran & Rachman, 2004; van Meegen et al., 2010).

There are two types of TAF cognitive errors: moral TAF, in which the thought and action are perceived as morally equivalent, and probability TAF, in which the fact of having the intrusive thought actually has an effect to increase the probability of its occurring.

Individuals with OC symptoms gave higher ratings to the likelihood of negative events happening as a result of their negative thoughts. Individuals with OC symptoms also rated the likelihood that they would prevent harm by their positive thoughts higher than did individuals without OC symptoms. These results suggest that the role of thought-action fusion in OCs may extend to exaggerated beliefs about thoughts regarding the reduction of harm. (Amir et al., 2001, p. 765)

Probability TAF can be especially severe when it becomes correlated to a compulsive behavior meant to prevent a dreaded event from occurring (Cogle et al., 2013; Mauzay et al., 2016; Shafran & Rachman, 2004). This process is similar to the magical thinking prevalent in New Age spirituality and traditional superstitious beliefs (Kaviani et al., 2015).

The relationship between scrupulosity and “probability-TAF” can also be explained by other perspectives. The items of “probability-TAF” for self and others in TAF scale point to such negative events as car accidents and illnesses, which can happen by thinking. (Kaviani et al., 2015, p. 56)

With scrupulosity, probability TAF can become especially difficult to treat because if the person with OCD, for example, fears going to hell, there is little reasoning that can be used to decatastrophize such an outcome. If having blasphemous thoughts does have even a small chance of condemning their soul for eternity, there is no way to reason successfully with the arguments of probability TAF that this is unlikely to happen, and if it did, that it would not be catastrophic (Altın & Gençöz, 2011; Amir et al., 2001; Berman et al., 2013; Shafran & Rachman, 2004). Providing reassurance is, of course, contra-indicated as it reinforces the checking behavior and does nothing to put an end to their fears.

Further, more conservative fundamentalist sects of each of the three main monotheistic religions each tend to reinforce the belief that Moral TAF is acceptable, and sometimes even encouraged among the more pious (Storch, Abramowitz et al., 2009). “Consistent with Christian doctrine equating sinful thoughts and actions, clergy members evidenced high levels of moral-thought action fusion that were comparable to those observed among individuals with OCD” (Deacon et al., 2013, p. 75).

This may lead to unintentional reinforcement of scrupulosity when clergy members advise religious practice that promotes compulsive actions for remission of sins, as in Catholicism, or promoting an increased fear of sin, as evidenced in Protestant teachings (Huppert & Siev, 2010). Differences among Catholics and Protestants have been found regarding the level of religiosity normative for each group and the influence of sect-specific weighting of TAF due to differences in doctrinal interpretation (Rassin & Koster, 2003).

Protestants are more strongly engaged in religion, than are Catholics. Furthermore, both Christian doctrines seem to be associated differently with TAF. While Catholicism correlates with morality and probability, Protestantism correlates even stronger with morality, but negatively with probability. The latter finding may reflect the idea of Devine (sic) predeterminism in Protestant teaching. (Rassin & Koster, 2003, p. 366)

Inflated Sense of Personal Responsibility

Following the OCD sufferer's line of thought, if thoughts are important and having bad thoughts is morally wrong and may, perhaps, increase the chances of a terrible thing happening, then the person likely will feel that morally they should try to prevent it (Rachman, 1997). This leads to the next cognitive error, taking responsibility for an undesirable event not occurring for which the obsessive person has very little or no actual causal contribution that could be altered.

Dysfunctional appraisals and/or beliefs about the equality of thinking to behaving (i.e., TAF-morality; "If I wish harm on someone, it is almost as bad as giving harm") seem to trigger responsibility schemas. (Altın & Gençöz, 2011, p. 107)

The anxiety which arises from trying to manage unmanageable outcomes may be alleviated by achieving an illusory sense of control. Substituting an OCD compulsion as a symbolic act may satisfy a need to exert control and regain a felt sense of safety. "When

individuals are striving to achieve control over life events through the control of physical and mental events (e.g., locking the door), such actions serve as the channels to higher order objectives of defending oneself from dangers” (Vassiliou, 2015, p. 13).

After the OC (obsessive–compulsive) individual’s engagement with the ritualistic element, a desirable SC (sense of control) and a dropping of anxiety levels will be experienced. However, the relief is impermanent and when the person starts feeling distressed will again engage in the ritualistic behaviour striving to gain control. The aforesaid interpretation of the hypothetical role of mental control in OCD might explain why OC individuals experience an inflated responsibility. (Vassiliou, 2015, p. 13)

Fraser (2013) noted that inflated responsibility is a phenomena across many psychopathologies and not specific to OCD. It does confer a risk to increasing TAF, which is highly correlated to developing OCD, however. As a trans-diagnostic risk factor for a range of mental disorders, “Both types of responsibility biases play different, but important roles in the development and maintenance of psychological symptoms related to anxiety, depression and OCD” (Fraser, 2013, p. 102). In a meta-analysis attempting to confirm the exclusivity of inflated responsibility to OCD, Pozza and Dèttore (2014) found that it increased psychopathology across a number of different mental health conditions. “Current findings did not seem to confirm definitively the specificity of responsibility to OCD. Responsibility could be a transdiagnostic factor for psychopathology” (Pozza & Dèttore, 2014, p. 75).

Inflated responsibility beliefs do persist due to a negative reinforcement process but also through the fact that they prevent the individual to verify that his/her beliefs are not realistic. Enduring inflated responsibility beliefs would be learned over long periods of time or as result of unusual or critical events. Different pathways might lead to the

development of maladaptive responsibility beliefs in persons predisposed to OCD, including the reinforcement of a generalized sense of responsibility for preventing threat, exposure to rigid and extreme codes of conducts and duty, or incidents involving action or inaction that significantly contributed to serious misfortune to self or other. (Pozza & Dèttore, 2014, p. 76)

While inflated responsibility contributes to psychological dysfunction, it is important to weigh its normative cultural importance in specific religious contexts (Dèttore et al., 2017). While especially stressful life experiences can contribute to cognitive biases in beliefs about personal responsibility, it is important to remember that they are not necessarily indicative of psychopathology, especially when generally considered accepted within a normative moral framework such as religion.

Overestimation of Threat

Much of obsessional fear is based on an overestimation of the actual likelihood, or rather, misappraisal of the unlikelihood, of what is feared actually occurring (Foa, 2010). This overblown sense of danger is out of proportion to the relative safety of many situations.

For example, an individual with OCD will believe that if he or she touches a public doorknob without washing his or her hands thoroughly, the germs on the doorknob will cause serious disease to him or her and/or to people whom he or she touched with dirty hands. (Foa, 2010, p. 199)

A common cognitive error is made in which the more apprehension is felt about a potential consequence, the more likely the person with OCD believes it will occur. No such correlation exists, but selective attention is given to worst case scenario, which increases anxious preoccupation with the thought. The prevalence of the thought mistakenly magnifies belief in its

likelihood of occurring, a subtype of Thought Action Fusion (TAF) known as Thought Event Fusion (TEF; Berman & Abramowitz, 2012; Melchior et al., 2021). TEF “implies that solely thinking about an event is responsible for causing it in the future or is a sign that the event actually did happen or is happening” (Melchior et al., 2021, p. 50).

OCD sufferers also tend to catastrophize their projections of the severity of a feared outcome, exaggerating the severity of consequences beyond what is likely or reasonable. “For example, contracting a minor cold is viewed as a terrible thing” (Foa, 2010, p. 199).

This can lead to hyper-vigilance for signs that what they fear may occur is imminent. Seeking reassurance from others that no such signs have occurred is an OCD compulsion meant to ensure safety. However, it is based on another cognitive error, faulty inductive reasoning. “Individuals with OCD conclude that in the face of lack of evidence that a situation or an object is safe, it is dangerous, and therefore OCD sufferers require constant evidence of safety” (Foa, 2010, p. 199). Normal cognitive biases lean toward evaluating direct evidence of a threat before determining a situation may be dangerous. In other words, a normal person will assume they will be safe if there has been no evidence of a threat.

OCD sufferers also tend to ignore actual sensory evidence and believe they may have made a mistake, however unlikely that may be. “For example, in order to feel safe, an OCD sufferer requires a guarantee that the dishes in a given restaurant are extremely clean before eating in this restaurant” (Foa, 2010, p. 199). If the patient were to inspect the tableware, and it appeared to be clean, it would not disconfirm the hypothesis that it could still be dirty they had somehow missed it, and further inspection could possibly reveal a potential harm yet undiscovered. However, “a person without OCD would eat from the dishes in the restaurant unless he or she has clear evidence that they are dirty” (Foa, 2010, p. 199).

Intrusive thoughts can also induce another cognitive error, Thought Object Fusion (TOF). By virtue of the unwanted mental intrusion occurring, the person with OCD attunes emotionally to how it would make them feel if it really did happen, then reacts emotionally, and sometimes even viscerally, as if it actually has. Often this emotional response is a feeling of disgust or dread because the UMI directs their attention to something totally unacceptable, such as death, or disgusting, such as contamination. This selective focus makes it difficult to control a physical response of intense fear or revulsion, leading to increased avoidance behaviors (R. L. Campbell et al., 2020). In the above scenario, the UMI of a dirty utensil would elicit disgust and the person with OCD would respond with losing their appetite, or even physically feeling nauseous (Foa, 2010). The person may actually vomit or decide to leave the restaurant in an extreme enactment of avoidance.

Intolerance of Uncertainty

While appraisal of potential harm from threat is exaggerated in OCD, it is closely related to an intolerance for uncertainty. “IU is the inability to cope with uncertainty in everyday life, such as not knowing whether or not negative consequences will result, even if the likelihood of those consequences is relatively low” (Reuther et al., 2013, p. 774). IU arises not from cool-headed judgment as a cognitive bias, but from the affective basis of increased worry. The need to “know for sure” and allay one’s fears of being wrong, caught unawares, or otherwise ill-prepared for what is perceived as potential disaster is the motivation behind repetitive checking and reassurance-seeking compulsions. Being unable to find closure in decision-making and let go of needing to resolve any doubt whatsoever is closely related to an inability to achieve a felt sense of completion (Lee & Wu, 2019). Like an intrusive thought, obsessional doubt leaves the person with OCD unable to release anxious tension as long as worries continue to resurface.

While most people can accept that there are some mysteries in life of which we can never be totally certain, for the person with scrupulosity, this ability to tolerate some existential angst is lacking (Abramowitz et al., 2002; Foa & Kozak, 1986). For some, this causes intolerable distress.

They are usually able to speculate (when pressed) that their unwanted intrusions are probably not technically sinful, at the same time they seem more mindful and distressed than most people that this is merely speculation...Because many religious matters are not subject to disconfirmation, but only to faith, patients' intolerance of uncertainty leads to intense anxiety and urges to reduce this anxiety using strategies that end up having the opposite effects. (Abramowitz & Jacoby, 2014, pp. 144, 147)

Intolerance of uncertainty is a cognitive distortion that has been demonstrated to fully mediate severity of OCS as well as maladaptive perfectionism (Reuther et al., 2013).

IU fully mediates the relationship between perfectionism and severity of OCD symptoms. This finding has an impact for understanding the nature and treatment of OCD with perfectionism as a primary symptom. Findings suggest that in order to address perfectionism, it is necessary to first treat cognitions and obsessions associated with IU and that this practice would lessen distress and interference associated with perfectionistic obsessions. (Reuther et al., 2013, p. 773)

No studies to date have examined scrupulosity and IU particularly, but numerous studies have confirmed a strong relationship between IU and OCD symptoms (Abramowitz & Jacoby, 2014). Further study is needed to elucidate what distinct cognitions surrounding religious faith allow greater acceptance of the mystery that is religion for people unaffected by OCD and how those factors might confer risk for scrupulosity.

However, IU and worry are closely linked thematically to many scrupulosity obsessions and both constructs correlated with not only OCD, but also depression and anxiety. “Intolerance of uncertainty and metacognitive beliefs are related to the intensity of both worry and rumination and are predictive across psychopathological syndromes” (de Jong-Meyer et al., 2009, p. 550). The metacognitive belief at play here is belief that worry and rumination are “functional in preventing negative experiences” (p. 550). Belief that worry and rumination are effective in reducing uncertainty increases one’s ability to tolerate it and reinforces irrational attribution of causality. This is otherwise known as magical thinking.

Magical Thinking

It has been argued that magical thinking is a central cognitive feature of OCD from the earliest cognitive models of OCD (Einstein & Menzies, 2004).

Rituals were attempts to reduce elevated danger expectancies such that individuals with OCD overestimated the probability and cost of the occurrence of unfavourable events. They also underestimated their ability to cope with perceived threat in an adaptive manner. Thus they viewed magical rituals (and neutralising behaviour) as the most effective means available to reduce perceived threat. (Einstein & Menzies, 2008, pp. 149–150)

In a seminal study on magical ideation (MI) and OCD, superstitious beliefs and TAF were found to be “derivatives” of magical thinking (Einstein & Menzies, 2004, p. 548). “TAF (likelihood) and superstitiousness were found to be related to OCD symptoms largely by virtue of their relationship with magical ideation” (Einstein & Menzies, 2004, p. 547). After controlling for MI, the correlation between TAF and superstition with OCD dropped out of significance;

meanwhile, controlling for TAF and superstition, the relationship between MI and OCD remained strongly significant.

TAF Likelihood can apply both to thoughts causing an increased likelihood of a negative event directed at the self and others. The main difference between TAF-Likelihood and superstition is that the cause in TAF is indirectly through one's thoughts while superstition increases the likelihood of an outcome through indirect actions (Altın & Gençöz, 2011; C. Campbell, 1996; Sica et al., 2002a).

While it may be irrational to believe that an unrelated event can be affected by a thought or symbolic action, it nevertheless provides a felt sense of agency as if it were. Young children often believe in magical thinking whereby they can cause something desired to happen. If it does happen to occur, then the expectation is confirmed and the behavior may be repeated.

Historically, it has been considered normal behavior in childhood until cognitive development matures in middle childhood and more plausible explanations of cause and effect are understood (Evans et al., 2002). A presumed cognitive bias for rationalism with increasing maturity has been disproven, however, because magical thinking has been shown to be prevalent at all ages.

“Younger children are in many contexts well able to distinguish imagination from reality, and that magical thinking is to be found among young children and adults alike” (Bolton et al., 2002, p. 488).

In a study of magical thinking given to boys and girls 5–17 years old, both genders overall exhibited similar levels. However, girls' MI remained steady at all ages while boys fluctuated from increasing levels up to age 10 to a decline between 12–13 years old and increasing levels reported from 14 to 17. While adults do not normally ascribe to magical thinking except for times of increased stress, it was “found to have strong and statistically

significant correlations with obsessive compulsion ... in the group as a whole and in both genders” (Bolton et al., 2002, p. 489). Bolton et al. conclude, “High MI is not sufficient to develop OCD, but that OCD sufferers with high MI would 1) be more likely to develop certain types of belief and 2) be more likely to engage in superstitious rituals (e.g., blinking or tapping)” (p. 490). There remains much to discover about the complex interactions between MI and OCD.

To the extent that magical thinking is implicated in OCD, there would be at least two further issues for research. First, there is the set of questions raised in the introduction about whether magical thinking may constitute a resource for coping with high anxiety, and whether in this case OCD in particular represents a coping strategy intended to maintain control. Secondly, the bio-psychological regulators of onset of OCD in childhood and adolescence, most commonly at around 9 years or in early adolescence (Flament et al., 1988; Rasmussen & Tsuang, 1986) may involve fluctuating levels of magical thinking. (Bolton et al., 2002, p. 490)

Einstein and Menzies’ 2004 study established a strong correlation of MI with OCD severity across all subtypes of OCD symptoms except for contamination obsessions and compulsive washing. A particularly strong correlation with “aggressive and atypical symptoms” was noted. This could be indicative of the category of forbidden thoughts dimension encompassing sexual, aggressive and religious/moral concerns associated with scrupulosity. However, the study did not differentiate moral or religious obsessions from the other OCD subtypes. Further research to examine differences in severity across symptom dimensions including scrupulosity would help to establish a strong correlation with the type of magical thinking seen in religious people with OCD. As Einstein and Menzies (2004) established, magical thinking is at the root of ritualized compulsions in OCD. Both religious rituals and MI

spur enactment of self-directed agency that may be motivated by fear-driven attempts at harm reduction.

However, not all religious rituals have a correlation with negative coping styles. Agorastos et al. (2012) demonstrated that religion/spirituality is correlated significantly with magical and paranormal ideation, but there was only a connection to the range of anxiety disorders as well as obsessive–compulsive disorders through the mediating effect of negative coping styles. Therefore, magical and paranormal beliefs do not necessitate clinical levels of affective dysregulation through negative coping. Some magical and paranormal beliefs can be part of normative religion/spirituality with no negative effect of increased anxiety or obsessiveness. Agorastos et al. (2012) reported that this “demonstrates the important role of negative religious coping in OCD and anxiety disorders yet does not clearly indicate a specific causality.” They advise that due to this complex relationship, it is imperative that treatment be sensitive to religious beliefs while “targeting cognitive aspects of negative religious coping” (p. 876).

Pathological Doubt

The common OCD behavior of checking is another symptom driven by fear and desire for harm reduction (Ettelt et al., 2008). In the context of scrupulosity, insistently checking with religious authorities for reassurance is an indication of dysfunctional doubt that arises due to intolerance of uncertainty. Reuman and Abramowitz (2018) noted that scrupulosity is clearly present when people perform elaborate checking of their obsessional fears and beliefs with religious authorities.

Clinical observations in Iran indicate that patients with scrupulosity often suffer from continuous doubts about accuracy of their prayers and try to achieve an ideal perfection

of religious acts in self-defeating manners. Frequent refer (sic) to clergymen and studying theological treatises are examples of the efforts to decrease religious doubts. These attempts are usually fruitless and give way to new obsessive doubts. This explains the observed significant association between scrupulosity and mental obsession. (Kaviani et al., 2015, p. 55)

Pathological doubt has been strongly correlated to both IU and a sense of incompleteness commonly experienced with OCD. Attempts to allay perpetual doubt and relieve distress often leads to compulsive ritualizing (Jacoby et al., 2018; S. R. Lee & Wu, 2019). “Avoidance behavior, thought suppression, compulsive rituals, and other neutralizing strategies, however, are counterproductive” (Abramowitz & Jacoby, 2014, p. 145).

Acquisition of Compulsions

Whether the action of a compulsion is observable or is an internal mental phenomenon, like other avoidance behaviors, it serves as a mechanism for reducing distress (Foa, 2010). The elegant simplicity of behavioral theory, as described by Mowrer (1960) states that obsessional fears are acquired via classical conditioning in which a stimulus and the emotion are paired, then maintained by the operant conditioning of negative reinforcement when a compulsion seems to inhibit the feared outcome.

Not only does Mowrer’s theory adequately explain fear acquisition, it is also consistent with observations of how rituals are maintained. In a series of experiments, Rachman and colleagues demonstrated that obsessions increase obsessional distress and compulsions reduce this distress. (Foa, 2010, p. 199)

In Mowrer’s Two-Factor theory, the compulsive act and what it is meant to affect may have been learned by a circumstantial pairing of the obsessive thought and some volitional action

having been experienced at the same time. When a desired outcome occurs, it is mistakenly believed to be causal, such as baseball players wearing lucky socks to each subsequent game once an important game is won (Burger & Lynn, 2005). The pairing is made by correlation of wearing the socks to winning the game, and causality is then inferred through magical thinking. Burger and Lynn reported the majority of baseball players in Japan and the U.S. used superstitious behaviors, especially when “in an effort to exercise some control over the otherwise uncertain consequences” and, “the more people attribute outcomes to chance or luck, the more likely it is that they will turn to superstition” (Burger & Lynn, 2005, p. 71).

Religious rituals used as compulsions are highly prevalent in scrupulosity. To the casual observer, the compulsion the person chooses to symbolize their desire to affect an outcome may not seem related at all (Foa, 2010).

“Some superstitious manifestations closely resemble OC phenomena (e.g., rituals, magical thinking, the belief that specific thoughts can directly influence the relevant external event)” (Sica et al., 2002a, p. 1003). There is some empirical basis for such a belief. Damisch et al. (2010) also found that priming with a suggestion of a superstition to ensure success had a statistically significant increase in the player’s subsequent successes. “Those for whom a superstition was activated performed better in various motor and cognitive tasks compared with participants for whom no such concept was activated” (Damisch et al., 2010, p. 1018). The experiment also showed that increased perception of self-efficacy mediated actual success in performance. “Activating a good-luck superstition leads to improved performance by boosting people’s belief in their ability to master a task” (p. 1018).

Compulsions can also be paired with particular obsessive thoughts through operant conditioning. The compulsion may symbolize an actual method by which the action could affect

the outcome, for example, bringing along an object that could be used as a weapon, or represents symbolically the feeling of security of possessing a weapon, for example, when a waitress has to walk through a dark alley every night after work. Carrying such a talisman is intended to ward off danger; every night the person is not attacked, the compulsion to carry it grows stronger. The compulsion to bring the weapon becomes a superstitious action. To their way of thinking, it increases the chance they will not be attacked. However, in the baseball study, it became clear that “although superstitious behavior was common among baseball players, the players were not as confident in the power of their superstitions as their behavior might suggest” (Burger & Lynn, 2005, p. 74).

Engaging in acts which mimic instrumentality under those circumstances, whilst at the same time “dis-believing” that their actions can, in reality, affect the outcome, is thus identified as essentially a ritual response, one which serves to re-affirm the individual's basic commitment to agency and an optimistic, activist intervention in the world. Such a perspective is seen as addressing the distinctive features of modern superstition without the necessity of representing it as equivalent to magic or invoking a-historical theories of “human nature.” (C. Campbell, 1996, p. 151)

With scrupulosity, the idea of warding off danger is commonly prescribed to the act of prayer. Excessive prayer reflects a mental state of intolerance of uncertainty, pathological doubt, and a sense of incompleteness common to OCD (C. Campbell, 1996). Prayer is also commonly believed to have an effect on the outcome of what is prayed for. However, behavioral models do not account for the complexity of the symptoms of OCD with its multivarious presentations and behaviors.

Conditioning models, however, have a number of limitations. First, many individuals with OCD do not report conditioning experiences that would have led to obsessional fear. Conversely, many people who have such experiences never develop OCD. Second, learning models cannot explain the emergence, persistence, and content of repugnant sexual, religious, and violent obsessions. Third, such models fail to explain why the themes and content of obsessions and compulsions shift for some individuals over time. These limitations led theorists in the latter half of the 20th century to consider the role of cognitive processes in the etiology and maintenance of OCD. (Abramowitz, 2022, p. 301)

Compulsions are now believed to be maintained by a complex interplay of cognitive, behavioral, and individual factors such as personality traits and individual experience (Alonso et al., 2008; Baer, 1994).

Personality Traits and OCD

The five factor model of personality used factor analysis to derive five distinct dimensions of personality traits: conscientiousness, neuroticism, extraversion, openness to experience, and agreeableness (Rice et al., 2007). Personality is an understudied area of research in OCD. Most research focuses on the obvious perfectionist traits exhibited by OCD and OCPD alike, and very little on seemingly unrelated personality traits. The five factor model is a useful model for evaluating the relationship of personality elements to what is known about OCD attitudes and behaviors, and making some informed guesses how they might relate to scrupulosity in areas where there has been little research. Most of the research on specific personality traits of people with OCD has not been done in the context of the five factor model. Where it has been integrated, it will be noted.

Traits of personality have been historically evaluated as “normal” versus “abnormal” rather than as dimensional ranges that appear as relative strengths or weaknesses. Expressed as a movable position along a continuum “abnormal personality can be modelled as extremes of normal personality” (Furnham et al., 2013, p. 91). Consideration of each of the “Big Five” personality dimensions and common cognitive traits in OCD gives a more complex picture of the disorder. “The older concept of visualizing OCD through the lens of personality disorders has now evolved to understanding it through personality traits. Evaluating the relationship of various OCD dimensions with personality traits may provide vital etiological, theoretical and clinical information” (Yadav, 2022, p. 549).

This more positive mindset and language also normalizes the pathologizing conceptual framework typically used to describe OCD cognitive and affective traits. This is a positive step for adjusting research focus for the future to appreciating strengths as well as defining deficits because it helps to define a goal of more optimal personality function along the continuum of traits rather than a reduction in maladaptive elements of a disorder (Yadav, 2022). As it pertains to OCD as well as its implications specifically for scrupulosity, the highly scrupulous personality still has adaptive, positive features of personality that are overshadowed by attention to the many dysfunctional attributes of the disorder. By focusing on the Big Five and bringing cognition and behavior back toward a balance of each of the five dimensions, a sense of well-being and wholeness is fostered that leads toward a goal of thriving rather than just stopping mental illness.

Research through the lens of personality traits also begins to define an inverse language of the descriptors commonly used for perceived deficits in psychopathology (DeYoung et al., 2007). It offers new language for a more accurate paradigm of personality that reflects the continuum of strongly to faintly expressed traits. This gives more flexibility in comparing

scrupulosity to other types of OCD for its distinct personality combination of features which have yet to be studied. “For example, obsessive–compulsive disorder will be maladaptively high on Neuroticism and Conscientiousness and low on Openness and Agreeableness” (Furnham et al., 2013, p. 91). How scrupulosity varies from OCD along these dimensions is unknown at this time.

Extraversion

Obsessive–compulsive tendencies are, in general, negatively associated with the dimension of Extraversion due to the intensely inner focus of cognitive obsessions (S. J. Kim et al., 2009; Samuels et al., 2000). Research has found low extraversion in OCD and linked it to less creativity which also requires flexibility and openness (Furnham et al., 2013).

Conscientiousness and Perfectionism

Conscientiousness has a virtuous connotation of aspirations of high-quality performance, attention to detail and industrious reliability while exercising self-control (Mallinger, 2009). It is the personality trait most associated with academic and career success, and reflects not just motivation but “more likely to exert more effort and be proactive, as well as be more self-disciplined and persevere” (Coleman et al., 2023, p. 27744). Sub-clinical obsessive-compulsive tendencies are positively correlated to conscientiousness in an adaptive manner that promotes creativity (Furnham et al., 2013). “Systematic, ordered, repetitive and ritualistic tendencies promote creative engagement ... (that) reflects high Conscientiousness” (Furnham et al., 2013, p. 96).

However, over-expression of the Big Five traits has been linked to “dark-side traits ... sub-clinical manifestations of the personality disorders ... If conscientiousness is characterised

by detail-orientation and ambition, then derailers would logically be highly perfectionistic and narcissistic” (Coleman et al., 2023, pp. 27745–27746).

Narcissism can display in two styles, grandiose and vulnerable, which is more neurotic while grandiose is more attention-seeking. “This attention-seeking may be interpreted as excessive goal setting and achievement-orientation, hence the link between conscientiousness and narcissism.” (Coleman et al., 2023, p. 27746) Further, extreme conscientiousness has been correlated to OCD behaviors and such people “may be rigid and inflexible, thus being less adjustable to change” (Coleman et al., 2023, p. 27745). If this sounds very similar to traits of OCPD, there is no surprise. In attenuated form, high conscientiousness may have a distinct flavor of ego-syntonic obsessiveness. The underlying mechanism is quite similar: an intense drive toward perfection that may, at times, exceed in zeal its functional purpose and become maladaptive (Rheaume, Freeston et al., 2000).

High conscientiousness is what is also described as “positive perfectionism” or “functional perfectionism” and earns salutary social reinforcement (Fedewa et al., 2005; Rheaume, Freeston et al., 2000). However, as in all things, over-expression of this trait leads to a maladaptive or “dysfunctional perfectionism,” “a “too-much-of-a-good-thing effect’, whereby excessive scores of personality traits relate to negative outcomes...derailment, whereby stress is most often the trigger” (Coleman et al., 2023, p. 27745).

Perfectionism is the result of an over-focus on high standards of performance that may be unrealistic, followed by a negative impact on self-worth when those standards are not met (Lutwak & Ferrari, 1996). It has been described as a self-defeating pattern of cognition with selective focus on comparison of oneself to others, particularly around perceived mistakes and substandard performance compared to an unattainable personal standard. Perfectionists believe

“that a perfect state exists that one should try to attain” (Pacht, 1984, as cited in Bouchard et al., 1999, p. 240). However, “perfection does not exist and the attempt to attain this perfect state would be associated with psychopathology” (Bouchard et al., 1999, p. 240). “High perfectionistic tendencies could predispose individuals to overestimate their perceived responsibility for negative events” (Bouchard et al., 1999, p. 239), which has been correlated with OCD symptoms (Rachman, 1997; P. Salkovskis et al., 1999).

Perfectionism is experienced as an internalized critical voice that brings with it guilt and shame. This self-critical attitude has also been “found to have appreciably high correlations with social anxiety, depression, distress, low self-esteem, and fear of negative evaluation” (Lutwak & Ferrari, 1996, p. 892). Not surprisingly, self-esteem is negatively correlated with perfectionism and fully mediates the path to OCD, as it also does to depression (Miegel et al., 2020).

Perfectionism is accompanied by a negativistic outlook on future performance and a punishing attitude about the inability to stop perseverating on pessimistic thoughts (Moore & Abramowitz, 2007). It is but a small step from persistent rumination to obsessional fixation seen in OCD. There are three distinct components of this negativity: performance, characterized by flawlessness and avoidance of potential mistakes with the goal of achieving peerless accomplishments; character, to be beyond reproach in all one says, does, or thinks; and “pickiness,” a fastidious, finicky, relentlessly detail-focused heightened awareness of potential flaws or limitations which significantly decrease the ability to enjoy one’s accomplishments (Mallinger, 2009). Attainment of one goal is quickly supplanted by the need to work toward another. There is no sense of “resting on one’s laurels” because the anxiety of losing this exalted status is a primary motivation; hence, a perfectionist will remain always hypervigilant to such a threat (Rheaume, Ladouceur et al., 2000).

Etiology of perfectionism has been traced to early childhood “attempts to navigate safely and securely through the minefield of personality quirks and demands of his or her family members” (Malliger, 2009, pp. 106–107). “Perfectionistic behaviors may develop from parents who have high expectations and children who have a deep concern about meeting those expectations” (Affrunti & Woodruff-Borden, 2014, p. 311). Other research has linked both children’s and parent’s temperament and parental anxiety disorders to perfectionism in children. Parental maladaptive perfectionism has been linked to psychologically controlling behaviors and an intergenerational transmission of perfectionism to their children both as a modeled behavior and adaptation to high parental control (Soenens et al., 2005).

Research has described three types of perfectionism: self-oriented, socially prescribed, and other-oriented (Hewitt & Flett, 1991, as cited in Rice et al., 2007) Self-oriented perfectionism which is inwardly focused, “involving unrealistic standards, compulsive striving, and all-or-nothing thinking that is self-imposed” (Lutwak & Ferrari, 1996, p. 892; Hewitt & Flett, 1991, as cited in Rice et al., 2007); other-oriented perfectionism, “an interpersonal style involving highly unrealistic standards and expectations imposed onto others” (Lutwak & Ferrari, 1996, p. 892); and socially-prescribed perfectionism, another internally-focused type based on “the expectation of one’s ability to meet the standards prescribed by others for oneself” (p. 892).

Self-oriented perfectionism is particularly relevant to OCD because it correlates with the sub-constructs of “concern over mistakes,” “personal standards,” and “doubts about actions” that predict maladaptive perfectionism (Frost, Martin, Hart, & Rosenblate, 1990, as cited in Rice et al., 2007). Further, multiple studies confirm that perfectionistic traits predict OCD severity (Egan et al., 2011; Martinelli et al., 2014; Reuther et al., 2013; Rice & Pence, 2006). Each contributes to depression and anxiety and has been shown to influence both self-oriented and

socially-prescribed perfectionism (Lutwak & Ferrari, 1996). A negative self-appraisal of not measuring up to a perfectionistic standard has an overall deleterious effect on mental health and psychosocial functioning (Egan et al., 2011).

Little research has been conducted focusing on perfectionism and scrupulosity. One study found both perfectionism and worry to have an inverse correlation with secure attachment to God (Niehus, 2021). Both increased socially-prescribed and self-oriented perfectionism partially mediated worry and anxious attachment to God. Further, self-oriented perfectionism significantly mediated worry and an avoidant style of attachment to God (Niehus, 2021). Future research should examine these subjects while comparing the three subtypes of perfectionism. It is possible that there are distinct differences in interaction effects that could shine light on effective clinical targets for therapy.

Neuroticism and Sensitive Domains of Self-Concept

One's self-concept is most correlated to introspection, and when it becomes a strong focus of attention it is observable in the five-factor model dimension of neuroticism. The umbrella construct of core self-evaluation has been operationalized with four components: self-esteem, emotional stability, generalized self-efficacy, and locus of control (LOC; Ng et al., 2006). "Among the Big Five traits, neuroticism is the most closely related to LOC," the sense of having control over one's fate (Ng et al., 2006, p. 1057). LOC is negatively correlated to neuroticism so that "those who believe that they are the masters of their fate should have more favorable core self-evaluations" (Ng et al., 2006, p. 1059).

People with an external locus of control "perceive themselves in a passive role" and "tend to attribute personal outcomes to external factors or luck" (Ng et al., 2006, p. 1057). An external

LOC is a risk factor for psychopathology in general, and has been specifically linked to developing OCD (Ng et al., 2006).

Among the many maladaptive schemas of people with OCD, “powerful others” and “chance” are correlated most highly. These schemas “were related significantly to both total OCD symptom severity and also with other sub-scales of OCD namely aggression, checking, and collecting” (Akbarikia & Gasparyan, 2012). Despite feeling little self-efficacy for controlling their fate, people with OCD have unremittingly high standards.

Self-oriented perfectionism is closely related to the idea of self-concept and vulnerabilities to a negative core self-evaluation, which also independently increases susceptibility to developing OCD (Doron, Kyrios, & Moulding, 2007). Certain competencies such as morality, work and educational performance, and social acceptability may be valued more highly in OCD patients. With poor performance in any of those highly valued domains, it is likely that the core self-evaluation will turn negative. People without OCD have natural cognitive processes to protect their self-esteem that people with OCD do not.

Theory of self-concept maintenance (Mazar et al., 2008) stipulates that people are so intrinsically motivated to maintain a positive self-regard that cognitive dissonance occurs when a conflict between the truth and one’s positive self regard occurs. Then, certain cognitive distortions common to humanity are needed to maintain self-esteem at all costs, typically at the expense of the truth (Wright & Riskind, 2021). As part of normal socialization, social norms and values are internalized as an ideal that is out of reach in actuality. This internal benchmark is aspirational, but also unattainable. Rationalization of their failure to achieve these goals while also maximizing personal gain relies on self-delusion that is normative and useful.

People behave dishonestly enough to profit but honestly enough to delude themselves of their own integrity. A little bit of dishonesty gives a taste of profit without spoiling a positive self-view. Two mechanisms allow for such self-concept maintenance: inattention to moral standards and categorization malleability. (Mazar et al., 2008, p. 633)

In people with OCD, personal standards may be unattainably high while, simultaneously, cognitive rigidity may make it more difficult for them to realize that it truly is unattainable. This ideal-reality gap is interpreted as personal failure rather than an unfortunate fact of life that one must accept, as most people do. Normal cognitive processes preserve self-esteem by reducing one's sense of responsibility, judging intentions rather than outcome, and twisting factual beliefs to better suit their need to feel like a good person. Not so in OCD. The reality-ideal gap is unacceptable and alarming (Doron, Kyrios, & Moulding, 2007). People with OCD struggle to accept the less-than-perfect compromise and usually choose to take the hit to their self-esteem rather than stretch the factual truth.

Rowa et al. (2005) studied the content of OCD patients' least and most upsetting obsessions in the context of current life concerns or issues and determined "their more upsetting obsessions were evaluated as more meaningful or significant than less upsetting obsessions, and more upsetting obsessions contradicted valued aspects of the self to a greater degree" (Rowa et al., 2005, p. 1453). These results support cognitive theories in that the strength and nature of appraisal appears to be linked with the distress associated with a thought, and the most upsetting thoughts are those that have implications for a person's sense of self (Rowa et al., 2005, p. 1453). Sensitive areas of a person's self concept that evoke shame or fear of being a bad person have a greater propensity to become obsessions (Doron, Kyrios, & Moulding, 2007). "The feared self was the only unique predictor of obsessionality, providing support for the notion that self-themes

could explain why some intrusions convert into obsessions, whereas others do not” (Melli et al., 2016). Sadly, a self-appraisal of incompetence in those domains makes the OCD patient draw a negative inference about their morality or other virtues. “Religious symptoms were reported as more upsetting than other symptoms—being seen as damaging to the sufferer’s piety” (Al-Solaim & Loewenthal, 2011, p. 169). The obsessions increase concomitantly with the perception that the thoughts intensifying and becoming more frequent is a sign of increasing danger. The “feared self” has the power to make someone sense danger to oneself or someone else “by virtue of being bad, immoral, or insane” (Doron, Kyrios, & Moulding, 2007, p. 875).

Agreeableness, Self Compassion, and Fear of Self Compassion

The five-factor model of personality’s dimension of agreeableness is generally understood to embody an open-minded sense of curiosity, a lack of conflict, is less motivated by self-interest and greed, and is negatively correlated with narcissism (Furnham et al., 2013). Agreeableness has been further broken down into two components, compassion and politeness (DeYoung et al., 2007). Politeness speaks for itself as the construct of socially agreeable, upright behavior that also carries a connotation of passivity and potential for being manipulated easily by others. Agreeableness has been correlated with an affective, emotional component of compassionate caring for other people as well as self-compassion, both of which have significant mental health benefits (Volk et al., 2024).

Compassion for others is best understood as “involving kindness versus indifference, common humanity versus separation, and mindfulness versus disengagement in response to the suffering of others” (Pommier et al., 2020, p. 22). Self-compassion is a corollary concept in which these same values are turned inward so that “individuals are kind to themselves, view their experiences as part of being human, and remain conscious of their difficult thoughts and

emotions without being absorbed in them” (Volk et al., 2024, p. 328). They have “an attitude of tolerance for the uncertainties in life and acknowledging and forgiving one’s own limitations” (K. Neff, 2003, p. 91). Self-compassion is negatively correlated to OCD symptom severity and obsessive beliefs and also negatively associated with emotion regulation difficulties (Eichholz et al., 2020). Based loosely on Eastern metaphysical practices and Buddhist belief, mindfulness has bridged cultures and been widely accepted as a self-help and guided intervention for many psychological disorders involving emotional distress (Kabat-Zinn, 2015).

Mindfulness can be practiced in many real life contexts and is particularly useful in increasing compassionate awareness of oneself and others (Kabat-Zinn, 2015; Masuda et al., 2022; Mathur et al., 2021; Matos et al., 2017; Melbourne Academic Mindfulness Interest Group, 2006; Nagy & Baer, 2017; Sguazzin et al., 2017). A promising line of therapeutic intervention uses exercises to increase self-compassion to address emotional dysregulation in addition to CBT. “Self-compassion may foster adaptive emotion regulation by approaching painful feelings with kindness, mindfulness, and a sense of shared humanity” (Eichholz et al., 2020, p. 635).

Personality-wise, self-compassion is correlated with conscientiousness, agreeableness, and extroversion (Volk et al., 2024). Self-compassion acts as a shield against disappointment, rejection, and shame. However, “people tend to be much more compassionate to others than to themselves” (Pommier et al., 2020, p. 35).

Compared to self-esteem, a construct which has been operationalized in research more commonly, self-compassion is less evaluative in an absolute sense, less affected by competition with others, and at less risk of becoming self-aggrandizing (Dupasquier et al., 2018; K. D. Neff et al., 2007). “Self-esteem is significantly correlated with narcissism whereas self-compassion is not” (Neff et al., 2007, p. 909). It seems to be the antithesis of outwardly focused judgment of

oneself because it reflects an inner state of acceptance and growth mindset. “Self-compassion was associated with reduced anxiety after considering one’s greatest weakness, but that self-esteem did not provide such a buffer” (Neff et al., 2007, p. 909).

“Self-compassion is negatively associated with self-criticism, depression, anxiety, rumination, thought suppression, and neurotic perfectionism, while being positively associated with life satisfaction and social connectedness” (Neff et al., 2007, p. 909). As a construct, it has been used mainly in researching psychopathology, but its more powerful conceptualization is as “an important human strength as it invokes qualities of kindness, equanimity, and feelings of inter-connectedness, helping individuals to find hope and meaning when faced with the difficulties of life” (Neff et al., 2007, p. 909).

Self-compassion has been found to be positively correlated with openness. For people with low self-compassion, self-disclosure of distress feels very risky due to exposing one’s feelings and insecurities to others who may criticize, judge, or reject them. They fear receiving compassion from others because they experience social support with feeling shame rather than warmth and acceptance (Naismith et al., 2019). Uncompassionate feelings for oneself are termed “fear of compassion” or “fear of self-compassion,” and arise from inadequate experiences of emotional support in childhood. “High parental rejection and overprotection, and low parental warmth in childhood predict...low self-compassion, and this (is) mediated by attachment anxiety” (Pepping et al., 2015, p. 104).

Sensitive and responsive parenting should foster the capacity to relate to oneself with compassion during times of stress, and to self-soothe to relieve the distress. In contrast, those who experience inconsistent, cold, or rejecting caregiving are less likely to be

self-compassionate and more likely to respond with greater self-criticism. (Pepping et al., 2015, p. 105)

Early childhood experiences impact development of self-compassion through attachment security (Pepping et al., 2015). “Insecurely attached individuals may be afraid of receiving compassion for fear it would precipitate memories of unfulfilling relationships and exacerbate feelings of loneliness” (Joeng et al., 2017, p. 6). People with insecure attachment may not have learned to receive comfort from attachment figures. This leaves them in a paradoxical situation, both wanting to reach out for support and resisting it.

For those with insecure attachment, seeking help and support from others in the past may have been ineffective, unattainable, unreliable, or dangerous; thus, rendering people fearful of (gestures of) helpfulness and compassion from others. The problem is though that they will be caught in an approach–avoidance conflict if they have the need or wish for others to be more caring and compassionate. (Gilbert et al., 2014, p. 240)

Compassion is thought to have “evolved as part of our human attachment system, which involves caring and soothing functions” (Merritt & Purdon, 2020, p. 354). As such, the need for compassion from others is a basic human need for safety and security. “People who tend to view self-disclosure as being risky are likely to conceal their feelings and forgo opportunities to receive valuable social support” (Dupasquier et al., 2018, p. 500). Fear of compassion can block those needs being met by association of need for emotional support with experiences of rejection, anger, and abandonment. The need for emotional connection and support triggers fear rather than a positive emotional response from seeking emotional security. Fear of compassion stirs a sense of heightened threat and danger, instead of comfort and affiliative bonding (Volk et al., 2024). “People who fear receiving compassion—those who feel threatened by expressions of

care from others—are likely to experience anxiety or embarrassment when others show warmth or kindness” (Dupasquier et al., 2018, p. 501).

Likewise, self-soothing may be conflictual due to harsh self-criticism for being “weak” or “needy.” Fear of compassion is associated with an anxious attachment style which leads to increased stress likely due to lower social support, and adult anxiety (Merritt & Purdon, 2020). Fear of compassion is highly correlated with depression and uniquely predicts severity of social anxiety disorder (Merritt & Purdon, 2020).

Perhaps the most surprising of its effects is the finding that “fear of expressing compassion for others uniquely predicted OCD symptom severity in those high on fear of self-compassion” (Merritt & Purdon, 2020, p. 354). It seems people with high fear of compassion inhibit themselves from offering social support as well as receiving it. It is theorized that inadequate parental modeling of social support may be partly to blame for this inhibition as they “may develop negative beliefs about showing compassion to self and others” (Merritt & Purdon, 2020, p. 363). Somehow this is related to increases of OCD severity. Could it be that inhibiting one’s drive to offer support increases OCD severity by not alleviating the need to connect positively to others? Or, to in some way, alleviate their distress and help them? It seems possible that compulsive actions could be symbolic attempts to respond to such inner promptings while also remaining safe from possibly distressing interpersonal interactions. It seems the OCD-fear of compassion link needs much further study to model this interaction and identify potential mechanisms to resolve this emotional impasse.

Moral rigidity has often been noted in OCD patients. Two items from Merritt and Purdon’s study showed a potential lack of compassion due to legalistic attitudes among their OCD subjects that were the most highly correlated with symptom severity: “people will take

advantage of me if they see me as too compassionate” ($r = .46$) and “being compassionate towards people who have done bad things is letting them off the hook” ($r = .47$)” (Merritt & Purdon, 2020, p. 363). More research is needed to determine if stronger traits of narcissistic indifference and insensitivity to others’ emotional needs is also correlated with fear of compassion, and which might be the mediational factor. This could potentially be helpful in identifying social difficulties for people with OCD that alienate them from others and impact the social support they might otherwise receive. Further, it is possible that showing lack of empathy for others is a preemptive strategy for avoiding social support by distancing oneself from others and that would otherwise feel uncomfortable.

Fear of compassion has been linked to fear of happiness, another construct of avoidance of positive emotions, with similar mediational pathways between attachment security and depression and alexithymia (Gilbert et al., 2014). While the work to analyze how OCD fits into an interaction with fear of happiness has not yet been done, it brings up a very salient issue. In people with OCD, is it all positive emotions that cause discomfort and spur avoidance behaviors, or is it specifically the additional social factor in fear of compassion that mediates the effect? Future research in this area could yield much data regarding scrupulosity and emotional responses to the practice of religion. While people of faith worldwide report not only the positive mental health effects, but their enjoyment of their religious practice, it could be that this differs for people with OCD, and likely for scrupulosity, then, as well. It may bring paradoxical displeasure where it should bring comfort and increased personal satisfaction, and this could increase the internal conflict of seeking to reduce anxiety with more religious practice.

The bi-directional impact of emotions on OCD is under-studied, though comorbidities are rampant and poorly understood. In a study that examined anxious and avoidant attachment and

the mediating roles of self-compassion and fear of self-compassion on symptoms of anxiety and depression, only “self-compassion independently mediated, and fear of self-compassion and self-compassion serially mediated, the paths from anxious and avoidant attachment to depression and anxiety” (Joeng et al., 2017, p. 6). Joeng et al. theorized a pathway for this mechanism. “Individuals who are anxiously attached had little capacity for coping with anxiety due to their inability to self-soothe. Thus, reducing their fear of self-compassion and increasing their self-compassion could effectively ameliorate their anxiety” (Joeng et al., 2017, p. 9). However, people with avoidant attachment are not able to resolve their anxiety in the same way.

Individuals who are avoidantly attached tend to be defensive when anxious ... likely to suppress feelings of vulnerability and deny their need for compassion when faced with anxiety producing situations. Thus, they may also need to accept their feelings of vulnerability as well as reduce their fear of self-compassion and increase their self-compassionate behavior in order to effectively manage their anxiety. (Joeng et al., 2017, p. 9)

Further study is needed to see if anxious and avoidant attachment also predict OCD symptoms through fear of compassion and fear of self-compassion. If this is established, it is likely that anxious and avoidant attachment to God would show a similar pattern for patients with scrupulosity.

Compassion Focused Therapy

Some promising work is being done “by experimentally enhancing attachment security, which led to an increase in state self-compassion” (Pepping et al., 2015, p. 104). By experimentally manipulating one’s self perceptions to become more positive, Aardema et al. (2019) found a reduction in OCD symptoms. Compassion focused therapy (CFT) is “a

trans-theoretical psychotherapeutic approach designed to help people suffering from high levels of self-criticism and shame” (Steindl et al., 2021, p. 761). CFT is based on Buddhist theology encouraging peaceful, compassionate relationship with all living things, including oneself (Gilbert, 2009; Riebel et al., 2023). “It also includes techniques from other cognitive and third-generation therapies (aspects of mindfulness taken from mindfulness-based interventions (García-Campayo et al., 2016), values that comprise an essential technique of Acceptance and Commitment Therapy and radical acceptance from Dialectical Behaviour Therapy)” (García-Campayo et al., 2016, p. 69).

A proposed mechanism of change in CFT is to develop the competencies of compassion to alleviate the powerfully detrimental effects of shame...other important aspects of CFT, such as fears of compassion, have been found to mediate the relationship between emotional memories of shame and lack of safeness and depression. (Steindl et al., 2021, p. 761)

CFT has shown effectiveness treating mood disorders. However, the most impactful application may be yet to come in using CFT to reduce self-stigma by addressing shame in a clinical population with severe mental illness and neurodiverse conditions. In the first multi-site randomized controlled trial of CFT planned for completion in 2025, researchers will compare efficacy of a 12-week group protocol for CFT, “COMpassion for Psychiatric disorders, Autism and Self-Stigma (COMPASS)” (Riebel et al., 2023, p. 1) to a psychoeducation program for self-stigma (Ending Self-Stigma), a therapy that “has been evaluated via two randomized trials and is widely used as routine practice across the world” (Riebel et al., 2023, p. 17). “This seven-center trial will involve 336 participants diagnosed with a severe mental illness and/or autism spectrum disorder and reporting high levels of self-stigma” (Riebel et al., 2023, p. 1).

Prospective results in the RCT's first phase in 2023 found no change for ESS versus treatment as usual, with high dropout, low attendance, and modest effects that were non-significant 6-months post-treatment. The second RCT found no superiority of ESS over a non-manualized general health and well-being program. Results are planned for evaluation by end of 2025.

Because ESS only targets self-stigmatizing thoughts and behaviors but does not target shame, we hypothesize that the latter might explain the high rates of drop-out and lack of immediate and long-term efficacy of the treatment on reducing self-stigma. This is why CFT, which has been shown to reduce shame across a wide range of clinical populations, should lead to better self-stigma outcomes than the ESS and TAU [73]. In particular, we hypothesize that changes in shame will mediate the relationship between the intervention and self-stigma outcomes. (Riebel et al., 2023, p. 17)

If the CFT group protocol effectively addresses the root of self-stigma and shame, it could positively impact many people with severe mental illness and/or ASD and “significantly improve their quality of life and their physical and mental health by reducing barriers to access care” (Riebel et al., 2023, p. 18). It seems likely that CFT could have a similar effect on OCD symptoms, but its efficacy has yet to be tested. The prosocial design of CFT as a three-month weekly therapy group seems like it would have an impact on reducing isolation, loneliness and self-stigma without any therapeutic element, but the titles of the modules are suggestive of rich experiential content and an approach integrating biopsychosocial understanding of SMI and ASD. Three such modules are:

Module #2 Compassion wisdom: the tricky brain and the social construction of self

- Soothing rhythm breathing (SRB)
- Tricky brain problem

- How and why we are different to other animals: our unique capacity for self-consciousness and self-judgment (“not our fault”)
- We are only one version of the infinite possible versions of self
- Understanding the influence of our social environment on our construction (“not our fault”) Soothing rhythm breathing (SRB)

Home practice: Identifying my own tricky brain loops

Module #4 Compassion wisdom: stigma and self-stigma

- SRB
- Introduction stigma and self-stigma
- Understanding the path from public stigma to self-stigma (“not our fault”) through the social construction of self and the tricky brain
- Consequences of self-stigma through the lens of the 3-circle model

Home practice: Soothing rhythm breathing (SRB) and Filling the self-stigma model and tricky brain loops associated

Module #10 Compassionate courage: compassionate assertiveness

- Understanding the components of compassionate assertiveness compared to submissive and aggressive expression
- Practicing compassionate assertiveness through role plays
- Home practice: Compassionately asking something we need. (Riebel et al., 2023, p. 7)

Attachment-based compassion therapy (ABCT) is another adaptation of CFT integrating attachment theory that was developed in Spain to better meet their cultural needs (García-Campayo et al., 2016).

As with other compassion protocols, we have incorporated a number of practices and theoretical foundations from tradition, such as Tibetan Buddhism, but also from other religions, such as Native American beliefs in which compassion plays a part, given that it is the common denominator in all of them. (García-Campayo et al., 2016, p. 69)

ABCT holds much promise for treating scrupulosity by more directly addressing insecure attachment to God while reducing fear of compassion and fear of self-compassion (García-Campayo et al., 2016). The future possible adaptations of CFT for different purposes and populations is a very hopeful, much-needed development in the history of psychological therapy.

Openness to Experience, Religiosity, and Locus of Control

Religiosity

Religiosity is most correlated conceptually to the five-factor model dimension of openness to experience. Scrupulosity is primarily a mental illness characterized by ego-dystonic religious and/or moral obsessions and not a maladaptive degree of religious zeal as proposed in early research (Rassin & Koster, 2003; Tek & Ulug, 2001). “Religiosity was related to some degree to perfectionism and to the parental attitude to upbringing” (Zohar et al., 2005, p. 857). Authoritarian parenting styles have been correlated to both religiosity and perfectionism as parental standards are internalized which may lead an increased experience of guilt when high personal standards are not met. Rakesh et al. (2021) found that “highly religious individuals tend to have greater obsessions related to their increased sense of personal guilt and beliefs that they are responsible for controlling unwanted, threatening intrusive thoughts” (p. 39).

At first glance, it would appear that highly religious people might be also highly rigid and controlling about adhering to their religion’s normative practices, in short, obsessive and compulsive in their religious practice. However, an increasing body of research shows that

increased religiosity is generally correlated to psychological well-being (Cohen & Johnson, 2017).

Empirical evidence often (though not always) supports relations between religion and aspects of quality of life. Most recent empirical work in the psychology of religion does indeed show that some aspect of religion (e.g., religious attendance or intrinsic religiosity) correlates positively with some index of well-being: Religious people report being happier and more satisfied with their lives. (Cohen & Johnson, 2017, p. 534)

While religiosity has not been shown to be consistently higher in subjects with OCD, their reported self-perception confirms a religiosity bias (Steketee et al., 1991).

Subjects with religious obsessions and rituals considered themselves more devout than those who had other types of OCD symptoms. Similar but less striking findings were apparent for those with sexual obsessions. More than the type of religious beliefs, their strength (and possibly rigidity) seems to contribute to the development and persistence of religious obsessions and compulsions. (Steketee et al., 1991, p. 364)

As it pertains to scrupulosity, high religiosity is a risk factor for developing religious obsessions among those people pre-conditioned for developing OCS. The relationship between religiosity and choice of obsessional content is influenced by the topics that are pertinent for their interests and objectives. It is not the religiosity that causes the scrupulous obsessions, but the obsessions capitalize on the selective focus on religiosity as a target of obsessions (Steketee et al., 1991).

Those with religious obsessions were significantly more religious than those who did not report such obsessions ... No trends regarding type of religion or religiosity were found for those with aggressive obsessions. By contrast, there were nonsignificant trends ... for

those with religious and/or sexual obsessions to be more often Catholic and for sexual obsessions to be positively associated with religiosity. (Steketee, 1991, p. 363)

As sexual issues and practice have always been within the domain of religion to inquire and attempt to regulate, it makes sense that people from religions with clear sexual prohibitions would likely develop some obsessional concern with them. Highly religious people tend to be more rigid in adherence to moral standards or religious practice than less religious people, confirming a positive bias toward OCPD. However, among people with scrupulosity, a correlation with degree of religiosity is not apparent. That is not to say that scrupulosity and a scrupulous personality are mutually exclusive. OCPD is considered a marker of increased severity when present with OCD because it leads to increased severity of symptom prevalence and difficulty in clinical treatment (Mikulincer et al., 2003). Sica et al. (2002a) hypothesized, quoting Rachman, that cultural influences on religiosity may also influence OCD.

People who are taught, or learn, that all of their value-laden thoughts are of significance will be more prone to obsessions—as in particular types of religious beliefs and instructions. Striving to be moral, all of one's actions and thoughts must strive for virtue—moral perfectionism. (Rachman, 1997, p. 798)

Steketee et al. (1991) examined religiosity, guilt, and the type and severity of OCD symptoms and found no significant increase in guilt or religiosity among people with OCD than other anxiety disorders. A specific correlation to OCD was found for religiosity, however, that was not evident with generalized or social anxiety. Religious obsessions were also correlated with religiosity above OCD without religious obsessions, suggesting salience of thoughts is related to intrusions (Sica et al., 2002a).

Although religiosity does not correlate to increased OCD-related cognitions across many studies, other studies conducted among different populations suggest that its effect may differ among religions, and even between denominations, due to variance in religious teachings and doctrine (Rakesh et al., 2021). This increased effect of religiosity may be a culturally-specific factor increasing the experience of guilt among OCD sufferers of different religions. Rakesh et al. note that the construct of religiosity has not been consistently applied and may be making it difficult to pinpoint cultural differences. The constructs of religiosity and spirituality are often indistinctly defined and sometimes measured divorced from religious practice. Further, religious fundamentalism is often labelled as religiosity (Rakesh et al., 2021).

While religiosity has mainly been studied as a single construct, the culturally-specific variance in religiosity was examined to determine why so many studies have found a positive correlation to well-being and more than a few others have noted negative correlations, as well (Osborne et al., 2016). “Although religiosity positively correlates with well-being, the mechanisms behind this relationship are poorly understood” (Osborne et al., 2016, p. 492). Religiosity has been operationalized as an internal-external orientation of personal values of the various ways it contributes to well-being.

Deconstructing these orientations has led to parsing out both positive and negative correlations to well-being. It turns out that “religious orientations that deemphasize people’s personal locus of control have negative consequences for well-being” (Osborne et al., 2016, p. 492). There are five basic orientations of religiosity (intrinsic, extrinsic-personal, extrinsic-social and quest and fundamentalism) that mediate life satisfaction and psychological distress via locus of control (Osborne et al., 2016).

Locus of Control. LOC has a bi-directional relationship with religiosity that varies based on one's belief in the religious teachings of their faith. This relationship holds among all the major world religions. "The positive relationship between personal locus of control and well-being emerges across cultures" (Osborne et al., 2016, p. 493). Intrinsically-oriented religiosity focuses on personal fulfillment and internalization of religious teachings. It is typified by a strong internal locus of control and also negatively correlated with depression. The extrinsic orientations practice religion for the social benefits it brings and report a moderate strength of internal locus of control. Extrinsic-personal religiosity most values inner peace and comfort during hardship, while extrinsic-social religiosity focuses on what can be gained by social connection.

A quest orientation of religiosity "operates as an existential belief system that acknowledges the uncertainty of an afterlife" taking "an open, albeit sceptical, approach towards their faith" (Osborne et al., 2016, p. 493). While quest types are not firm in their faith, they are committed to exploration and also have a moderate internal LOC. Each of these orientations are positively correlated to well-being to various degrees commensurate with the degree of self-efficacy and internal locus of control endorsed within their faiths.

The last type of religiosity, fundamentalism, however, is negatively correlated to both well-being and internal locus of control. "Fundamentalism incorporates the dogmatic view that one's religion is better than other religions and that one's religious teachings "must be followed"" (Osborne et al., 2016, p. 493). It is also correlated with prejudice toward outgroups that may serve a purpose of building group cohesion as well as a strong sense of membership by protecting against "threats to this certainty by excluding and otherwise discriminating against groups that appear to violate fundamentalists' beliefs" (Brandt & Reyna, 2010, p. 715).

It is this cluster of beliefs surrounding a presumptive inerrant truth that makes fundamentalism a firm knowledge structure. In this way fundamentalism may not be psychologically aberrant but rather adaptive in the sense that it helps provide a sense of coherency, control, and the reduction of ambiguity. (Brandt and Reyna, 2010, p. 715)

However, religious fundamentalism is also firmly correlated to an external locus of control (Osborne et al., 2016). It is also characterized by low self-efficacy and cognitive rigidity within an already rigid belief system in a source of power outside themselves that they feel compelled to follow. Fundamentalism is also correlated to depression and negatively correlated to well-being. In a circular relationship, an external LOC and fundamentalist orientation contribute to behaviors of learned helplessness and a fatalistic outlook on life (Osborne et al., 2016). Each of these factors are also highly correlated to OCD. It seems clear that fundamentalism is likely to be even more highly correlated to scrupulosity, but few studies have examined the relationship directly. A study of religious fundamentalism in Christianity found no correlation with scrupulosity (Witzig & Alec Pollard, 2013). However, that study did not measure locus of control or consider religious orientation along with religiosity.

In another study comparing religiosity of fundamental Protestants, Catholics, and subjects with no religious affiliation to scrupulosity, Abramowitz et al. (2004) found that fundamental Protestants with high religiosity endorsed much more belief in the importance of controlling thoughts. That study concluded there was a correlation to well-being and religiosity with fundamentalism that confirmed null findings of previous studies, and that high religiosity did not predict severity of scrupulosity. However, there is reason to suspect that some relationship does exist other than through religiosity. The missing mediator of scrupulosity could be locus of control, which may be influenced by belief in the importance of controlling one's thoughts.

Further research must be done on both constructs to theorize how they are related due to some thematic overlap of issues of control. Locus of control is a therapeutic target that may become instrumental in reducing symptoms of scrupulosity by reducing the distress around feeling little internal locus of control while also believing it is essential to exert such control.

Affective and Emotional States Relevant to OCD

While Rachman's cognitive theory has been well validated, the affective and relational elements which also mediate clinical presentation of OCD symptoms is less well-studied compared to the prevalence and persistence of its clinical presentation (Mikulincer et al., 2003). Some data suggests that the cognitive and affective origins of scrupulosity are distinctly different than typical OCD thematic domains within the cognitive theory and few studies have addressed them directly. However, strong inferences can be made based on the similarities and research on how emotional experiences play on cognition and behavior that is highly relevant to scrupulosity.

Negative affective states, in general, have been correlated strongly with maladaptive coping and the development of psychopathology in multiple studies (Szentágotai-Tătar & Miu, 2016, p. 2). "Self-criticalness was found to have appreciably high correlations with social anxiety, depression, distress, low self-esteem, and fear of negative evaluation" (Lutwak & Ferrari, 1996, p. 892). Self-reflective emotions such as sadness, shame, and guilt are the result of a reaction to one's own perceived characteristics and behavior.

Highlighting relevance to morality and ethics, these emotions are typically felt when one fails to meet an acceptable standard of behavior or performance for which, rightly or wrongly, one blames oneself (Szentágotai-Tătar & Miu, 2016). This sad state then impacts one's self-esteem and, if not restored, can add to the risk of developing depression.

Depression has been shown to be correlated highly to maladaptive perfectionism, which is “negatively associated with self-esteem and positively associated with symptoms of depression, with self-esteem mediating the effects” (Ashby et al., 2006, p. 148). Depression is highly co-morbid in OCD, with varying estimates of prevalence in children and adults from 20%–80% (Bolhuis et al., 2014), and has been shown to be correlated to experiencing persistently those same distressing emotions (Lutwak & Ferrari, 1996). This is especially harmful to one’s mental health during adolescence, a stage of development “thought to be characterized by maturational changes in emotion regulation, which also play an important role in vulnerability to psychopathology” (Szentágotai-Tătar & Miu, 2016, p. 2). Further explication of relationship with these negatively valenced emotions from research on OCD could help determine more clearly their impact on scrupulosity.

Guilt

Guilt is a negative affective state characterized by a variable mix of disappointment, regret, and/or remorse depending on one’s assessment of self-blame for something bad that has occurred or for failure to prevent it (Lutwak & Ferrari, 1996). “People often report obsessively thinking about the specific transgression act and wishing they had behaved differently or could somehow “undo” the deed” (Lutwak, Ferrari et al., 1998, p. 1027). If the harm can be rectified or reparation be made, guilt often causes intense anxiety until that can be accomplished. The motivation seems to be repair of the social bond with the victim of one’s actions/inaction (Lutwak & Ferrari, 1996). Guilt is outwardly focused on an action or outcome, and is differentiated from shame which focuses inwardly on the self-concept (Fedewa et al., 2005), though they are similarly perceived and attributed to the self negatively (Lutwak, Razzino et al., 1998, p. 333).

Early studies found a distinctly divergent pattern of guilt and shame where women experienced significantly higher rates of both emotions than men (Lutwak & Ferrari, 1996, p. 891). “Separate factor analyses for gender indicated that for men, shame loaded with self-critical cognitions while guilt loaded with dimensions of perfectionism. For women, both shame and guilt loaded with self-critical cognitions, but only socially-prescribed perfectionism” (Lutwak & Ferrari, 1996, p. 891). Social identity is a key factor in the experience of both shame and guilt. Guilt is related to conceptualizing oneself as unique, and facilitates self-exploration of personal issues through an information-oriented cognitive style (Lutwak, Ferrari et al., 1998, p. 1027).

In shame, on the other hand, avoidance of such personally-relevant information and identity exploration is due to an attempt to preserve a positive sense of self and leads to self doubt and a global cognitive processing style (Lutwak, Razzino et al., 1998). Shame-prone individuals may have a poorly developed sense of identity and be motivated more by concern for their reputation, or a phony public image. A “deeper feeling of insecurity, low self-esteem, and fear of public exposure” may cause “feelings of inauthenticity about one’s self-identity” (Lutwak, Razzino et al., 1998, p. 336).

Guilt-prone individuals reported being more comfortable in social settings, seek information that enhances a sense of being a unique, valuable individual, and report a clearer sense of self. A tendency toward guilt or shame may reflect different experiences with and perspectives on identity formation (Lutwak & Ferrari, 1996; Lutwak, Razzino, et al., 1998; Tangney et al., 2009). Shame-prone individuals tend to form a sense of self as powerless and worthless, and “may prompt a desire to hide the defective self—to sink in the floor and disappear (Lutwak, Ferrari et al., 1998, p. 1028). From an evolutionary perspective, guilt, but not shame, is advantageous because it is prosocial (Basile, Mancini, Macaluso, Caltagirone, Frackowiak, &

Bozzali, 2011). “Shame-free, pure guilt also has been positively related to moral behaviors and other-oriented empathy” (Lutwak, Ferrari et al., 1998, p. 1028).

Guilt can be further broken down into two distinct motivations: deontological and altruistic guilt. “Altruistic” or “instrumental” guilt is felt when harm has or will likely come to another due to one’s actions or inactions, and with an altruistic ethic, one would wish to come to no harm and should seek to prevent it, if possible. It can be intensified by blame and anger from the wronged party, and can co-occur, but often is not related to any kind of moral transgression. Altruistic guilt is about making a mistake that someone else suffers for, whether it was intended or not. Guilt can also be felt when there is no clear victim (Ottaviani et al., 2019). However, “most of the guilt feelings individuals experience in everyday life usually result from a concurrent perception of having transgressed a moral norm and not having acted altruistically” (D’Olimpio & Mancini, 2014, p. 728).

Guilt that is felt solely due to transgressing personal ethics or societal norms or laws, without an identifiable victim, is “deontological” in the sense that it rests on a sense of duty or obligation to uphold a standard of behavior for its own sake. Deontological ethics is derived from the moral philosophy works of Immanuel Kant (1724–1804) and Aristotle (384 BCE–322 BCE) in the Western tradition, and in the Eastern tradition, Confucius’ (551–479 BCE) writings extolling virtue ethics (Benlahcene et al., 2018). While it is usually used to describe different views on choices and actions, its applicability to the concept of guilt lies in its having transgressed a higher virtue, ethic, or truth, rather than the simple good or bad outcome of one’s actions, which is known as utilitarian, or consequentialist ethics.

Deontological guilt has been researched extensively as it relates to obsessional thought causing a sense of transgression when there has been none—“seeing sin where there is none.”

With no actual transgression, deontological guilt should not be experienced. However, it has been demonstrated often that manipulating deontological guilt will cause checking behaviors in OCD patients, as well as decrease urges to perform compulsions when personal responsibility is decreased, removing the likelihood of deontological guilt (D'Olimpio & Mancini, 2014).

Conversely, studies manipulating altruistic guilt have not correlated to OCD behaviors (Ottaviani et al., 2019). Deontological and altruistic guilt are not associated with the same structural areas of the brain: deontological guilt activates the insulae and anterior cingulate cortex, whereas altruistic guilt activates the medial prefrontal areas (Gangemi & Mancini, 2017).

Manipulating deontological guilt has been shown to mediate feelings of disgust.

“Deontological guilt is related to disgust, and that this relationship could explain why both fear of contamination and fear of guilt are often co-present in obsessive patients” (Gangemi & Mancini, 2017, p. 155). Comparison of OCD patients with healthy controls showed “differences in patterns of autonomic reactivity” in heart rate variability when introducing stimuli of physical versus moral disgust (Gangemi & Mancini, 2017, p. 161). For the control group, moral disgust is said to leave a “bad taste” only in a metaphorical sense, while the OCD group experienced physical reactivity to both types of induction. Further, only in OCD patients was guilt propensity correlated to disgust propensity in an experimental induction (Gangemi & Mancini, 2017, p. 161). “Feelings of guilt are linked to feelings of impurity” and “guilt increases feelings of contamination” while “cleansing decreases guilt”, known as the “Lady Macbeth effect” (D'Olimpio & Mancini, 2014, p. 728). “The goal of washing is similar to that assumed in checking rituals: preventing or neutralizing guilt” (p. 728). Washing one’s hands has been shown to relieve the distress of moral emotions while also reducing the willingness to risk contamination by helping someone else immediately after washing (p. 728).

The “Macbeth effect” has been shown to be particularly prominent in individuals with OCD and was not limited to individuals with washing rituals, but it was also robust in individuals with checking and mixed rituals, suggesting that the relationship between cleansing and morality in OCD may be quite broad. (Gangemi & Mancini, 2017, p. 161)

Deontological guilt is stronger and triggers more moral and physical disgust for violations of the “natural order” typically concerned with religion than the civic duties or obligations of a social role or class, or violations of the rights of an individual (D’Olimpio & Mancini, 2014). Something stronger is at work here and is seen in the experimental results differentiating deontological and altruistic guilt. “The link between deontological guilt and disgust could explain why moral sins (against the moral authority, God, or the natural order) are dirtier and more washable than are sins against others (altruistic guilt)” (D’Olimpio & Mancini, 2014, p. 735). “According to Catholic theology (Benedict XVI, 2013), original sin is due to humans’ willingness to replace God and, therefore, concerns the relationship between humans and divinity rather than empathy, altruism, or affection for others” (D’Olimpio & Mancini, 2014, p. 735). Deontological guilt in this theological context represents a rupture of right relationship. The Catholic rite to cleanse one from original sin is baptism, a symbolic cleansing of one’s sinful nature inherited from original sin at birth.

“Cleanliness is next to godliness” is a classic aphorism that speaks to an innate connection between physical purity and mental purity—in essence, wellbeing. To “clear your conscience” suggests getting rid of guilt by purification. Symbolic purification has been shown to experimentally reduce feelings of physical contamination, as well, for OCD patients. Religious rites in all the major world religions include ritual washing as a symbolic act of mental and spiritual purification.

In all religions, sin dirties the consciousness and washing the body cleanses the consciousness. Scientific literature has suggested a close relationship between psychological sense of guilt and disgust that goes beyond mere metaphor. (D'Olimpio & Mancini, 2014, p. 727)

D'Olimpio and Mancini (2014) make an interesting causal inference from the scriptural story of Pilate's judgment of Jesus that has given us the saying, "to wash your hands" to free oneself at least symbolically from guilt and, presumably, absolve oneself from judgment.

Pilate, after having sentenced Jesus Christ unjustly, took water and washed his hands and said, "Innocens ego sum a sanguine iusti huius" ("I am innocent of the blood of this right man"; Mt. 27:24). Hand washing was an attempt to reduce his guilt, presumably related to the awareness of having committed an act against justice. (D'Olimpio & Mancini, 2014, p. 735)

While research has strongly connected OCD behaviors to deontological guilt and physical and mental disgust, unrelated research has connected religiosity and guilt. Steketee et al. (1991) found that "religiosity was moderately positively associated with the degree of guilt, particularly interpersonal harm guilt, which may most closely reflect obsessive fears, and this was only true for subjects with OCD" (p. 366). Deontological guilt may be negatively correlated to religiosity due to the strong moral sense of wrong that could be relieved in people with higher religiosity; hence, highly religious people would be more affected by altruistic guilt when they truly perpetrate harm, but this supposition has yet to be tested.

Guilt, more than anxiety or depression, was the strongest overall predictor of intrusive thoughts in a multiple regression analysis of emotional states (Niler & Beck, 1989). The authors remarked, "the etiology for obsessional thoughts or impulses is more likely for those individuals

who have had a strict moral background and high standards of conduct and morality” (Niler & Beck, 1989, p. 219).

In addition, the notion that guilt is related to obsessions is not new—it was “first raised over 90 years ago” by Freud (Niler & Beck, 1989, p. 219). As an expression of intrapsychic conflict, psychoanalytic perspectives posit it is the intervention of the Superego that “sanctions impulses, desires and actions that violate internalized norms” (Gangemi & Mancini, 2017, p. 1). As seen in the example of Martin Luther’s obsession with filth and excrement, disgust propensity is highly suggestive of the need to negate and neutralize a repellant substance or thought, or both, in order to relieve oneself of deontological guilt.

Shame

Shame has been experimentally induced by introducing a theme of betrayal with an imagined perpetration of non-consensual unacceptable act which greatly increased feelings of contamination and urges to wash—a “perpetrator effect.” The imaginal perpetrators experienced very strong negative emotions including guilt, disgust, a feeling of mental “dirtiness,” and intense shame (Rachman et al., 2012). While it usually has some connection to a feeling of real or imagined guilt, shame takes it a step farther and internalizes a negative judgment on the self.

Shame involves a malignant self, not a malignant behavior ... shame involves a malignant self in which a person imagines being criticized by another real or imagined individual ... being observed disapprovingly by others, so that even when alone the individual feels scrutinized ... an overwhelmingly painful and self-critical experience that involves a direct threat to one’s sense of self-worth and self-efficacy. (Lutwak & Ferrari, 1996, p. 891)

Shame is likely to become a persistent affective state when “selective focus on personal performance failures, comparison of oneself to unrealistically high performance standards and negative self-expectations about future performance” create “a self-defeating cognitive pattern...and an inability to exit a self-critical cycle concerning one’s performance” (Lutwak & Ferrari, 1996, p. 892). Such a high degree of self-critical reflection was found to have “appreciably high correlations with social anxiety, depression, distress, low self-esteem, and fear of negative evaluation” (Lutwak & Ferrari, 1996, p. 892). There is a relationship between shame and maladaptive perfectionism related to failing to measure up to the “ego-ideal.” This is only enhanced by unrealistically high standards. “For the perfectionist, being “average” or “ordinary” in an important activity comes to be seen as shameful” (Ashby et al., 2006, p. 150). Naturally, this negativistic mindset can engender a hopeless attitude and emotional fragility that makes tenuous demands on self-esteem.

Fragile self-concept has been previously noted to be a distinguishing characteristic among people with OCD (Jaeger et al., 2021). Shame has an effect of creating an overly pessimistic view of one’s value and virtues based on selective attention to disappointments and past failures. Low self-esteem leads to negative mood states, increasing unwillingness to risk social rejection, isolation, and obsessional interest in how one is perceived by others, anticipating failure (Ashby et al., 2006).

This persistent affective state has been labeled, or mislabeled as the case may be, in the research as “fear of self.” This euphemism seems to detract from the self-loathing intensity of shame encapsulated in Kaufman’s (1989, p. 18) description: “Sudden, unexpected exposure coupled with blinding inner scrutiny” (Murphy & Kiffin-Petersen, 2017, p. 658).

Fear of self suggests an “otherness” to the public persona a person with shame wishes to eject from their self-concept. It entails a sense of exposure to not just others’ judgments but simultaneously one’s own. “The path from maladaptive perfectionism to shame and depression may be related to feelings of letting others down” (Ashby et al., 2006, p. 154). Research linking socially-prescribed perfectionism to shame also links it to depression (Ashby et al, 2006).

What is exposed is their self-perceived deeply flawed side that comes to dominate their thoughts without counter-balance. In experiments, “fear of self was a unique, major predictor of unacceptable thoughts independent of negative mood states and obsessive beliefs...the only unique predictor of obsessionality” (Melli et al., 2016, p. 226).

Though research has not yet addressed this question, it is reasonable to hypothesize that people with scrupulosity would rate themselves higher on the Fear of Self Questionnaire developed by Aardema et al. (2013) than would people with non-scrupulous symptoms. This could be based on internalized stigma due to the personal implications of their religious, moral, and sexual obsessions (Lutwak, Razzino et al., 1998; Tangney et al., 2009).

However, shame is an under-studied construct in psychology, in general, and the depth of its presence in scrupulosity is not fully appreciated. It contains an element of hopelessness and inability to believe in the potential for personal change that may perpetuate the OCD cycle in both an attempt to reduce distress and to momentarily counteract shame’s effect lowering self-esteem by symbolic behaviors that represent safety and deliverance from torment.

There is also a pervasiveness to the sense of shame that generalizes from one particular aspect of one’s personality or character into an indictment of the totality of their personhood. This is encapsulated in the description of shame versus guilt as being about “who one is” rather than “what one has done.” This carries distinct correlations to the differences between

deontological guilt and altruistic guilt. When one has violated their own moral code the effect on one's conscience is more global than the experience of guilt over a limited action. In the same way, shame's reflection on the whole person eclipses the kind of embarrassment that pertains to a particular action or attribute.

The scope of the issue is quite global with both shame and deontological guilt. Both shame (J.-E. Kim & K.P. Johnson, 2014; Laving et al., 2023; Mancini & Mancini, 2015) and deontological guilt (Ashby et al., 2006; Fedewa et al., 2005) are correlated with OCD and scrupulosity, in particular. What has not been investigated is the causation of this complex relationship. It is likely that different personalities, experiences, and circumstances affect the directionality of both causation and perseveration of both shame and deontological guilt within scrupulosity. Due to the intense emotional valence of both emotions, it is likely to be a central therapeutic target. Much work needs to be done to address this issue that may lie at the very heart of scrupulosity and contribute to its elusive nature in treatment.

Disgust

Disgust is a primary emotion that is evolutionarily advantageous for the enhanced ability to detect potential contamination and decrease the transmission of disease (Oaten et al., 2009; Rozin et al., 1994; Sprengelmeyer et al., 1997). Three domains of disgust have been theorized to be evolutionarily adaptive, including pathogen disgust with aversion to materials that increase risk of illness, sexual disgust for partners and behaviors that increase risk of reproductive failure, and moral disgust for individuals or groups that transgress social norms and threaten the integrity of critical social structures and networks thereby threatening the survival of individuals and groups (Herba & Rachman, 2007; Poli et al., 2019).

Disgust can cross multiple domains and be more or less complex depending on the feared outcome and risk of contamination (Herba & Rachman, 2007; Oaten et al., 2009).

Simple disgusts are directly disease related, are acquired during childhood, and are able to contaminate other objects/people. The complex disgusts, which emerge later in development, may be mediated by several emotions. In these cases, violations of societal norms that may subserve a disease-avoidance function, notably relating to food and sex, act as reminders of simple disgust elicitors and thus generate disgust and motivate compliance. (Oaten et al., 2009, p. 303)

Socioemotional deficits including theory of mind (ToM), decreased facial recognition of others' emotions, and heightened disgust sensitivity have been found in both clinical and non-clinical subjects with OCD (Grisham et al., 2010; Sprengelmeyer et al., 1997).

Although findings of impaired disgust recognition and heightened disgust sensitivity seem contradictory, they may be related. Sprengelmeyer et al. (1997) have posited that OCD patients may fail to learn to recognize facial expressions of disgust because they differ from other people with respect to the situations in which they experience disgust. (Grisham et al., 2010, p. 257)

Impairment of the ability to detect facial expressions of disgust could elicit a marked degree of fear of contamination due to being unable to rely on caregivers to warn of it and little feeling of mastery of those appraisals. As a protective feature to counteract this deficit, increased fear of contamination would heighten sensitivity to experiencing disgust (Grisham et al., 2010).

OCD symptoms may be associated with a disruption or imbalance in disgust processing, such that there is a deficit in the experience of disgust when evoked by observing this

affective state in others, and a disproportionate increase in the experience of disgust when evoked by contamination stimuli. (Grisham et al., 2010, p. 258)

Neural pathways in the fronto-striatal regions that are involved in the mediation of disgust have been shown to be compromised in subjects with OCD (Sprengelmeyer et al., 1997). This may lead to a disconnect between people with OCD's perceptions and others' perception of disgust. "If OCD involves a dysfunction of this appraisal process, then a poor correlation between the stimuli which evoke disgust in OCD sufferers and stimuli evoking disgust in other people will result" (Sprengelmeyer et al., 1997, p. 1767). As a socially acquired skill, people with OCD may lag in this key ability (Grisham et al., 2010).

To the extent that recognition of facial expressions is learnt in a social context by mapping the appropriate expression displayed by others to one's own emotional experience, people with OCD will have little opportunity to learn to recognize facial expressions of disgust. For example, when a person with OCD experiences disgust other people may not, and hence they may show non-disgust expressions. The consequence will be to weaken any learned association between the emotional experience of disgust and the corresponding facial expression displayed by others. (Sprengelmeyer et al., 1997, p. 2)

With less ability to detect disgust on other people's faces, a key early warning system available to the social group may not be caught by the person with OCD. In a test of facial recognition, "there was a perfect separation of disgust recognition scores on this test, with every person in the OCD group showing significantly impaired recognition of disgust and everyone in the anxiety (control) group scoring in the normal range" (Sprengelmeyer et al., 1997, p. 1770).

Further, in people with low emotional awareness as is common with OCD, ambiguous facial expressions are often misperceived as disgust rather than other negative emotions (J. I. Kang et al., 2012). Misreading other emotions for disgust is a predictor of OCD cognitions (Poli et al., 2019; Rozin et al., 1994; Sprengelmeyer et al., 1997).

Disgust can be considered a “rejection-from-self emotion” (Rozin et al., 1994, p. 871) because of the undesirability of contact or proximity to the thing or idea which elicits disgust and the tendency of people with OCD to internalize a negative self schema based on those ego-dystonic experiences. This appraisal process of disgust follows three distinct rules of rejection: avoidance of physical contamination, avoidance of proximity to rejected others, and combined avoidance of physical and proximal influence by feared others (Rozin et al., 1994).

In an early study of facial expressions, disgust was evoked by narratives suggesting physical contamination (Rozin et al., 1994). Three different types of disgust were found: animal/physical disgust due to suggested stimuli of rotten food, feces, and dead bodies; interpersonal contempt evoked by interaction with others who are rejected for the disgust they elicit in a relational context; and moral disgust of oneself or others evoked by a combination of suggestions of physical/animal stimuli such as contamination, disease, and death, as well as contact with others who are judged morally repulsive (Rozin et al., 1994).

Moral disgust was exhibited by the facial expressions of a curled upper lip and downturned corners of the mouth seen similarly to the facial expression of a slightly open mouth and protruding tongue symbolizing nausea and vomiting with physical disgust for unsavory food. Suggested social contact with a physically contaminated person elicited moral disgust when the suggestion included collusion or cooperative behavior with them (Rozin et al., 1994). This may

indicate that disgust/contempt for participating in such actions may also be felt for oneself, perhaps for breaking the social norm of avoidance of physical proximity to rejected others.

While Rozin et al.'s study established a link between disgust and OCD, further research to differentiate disgust/contempt for others versus oneself could link the emotion of disgust to scrupulosity via moral disgust with oneself. An experimental induction of self-disgust when a moral transgression has occurred could identify a correlation with scrupulosity through the mediating effects of fear of others and fear of self (Rozin et al., 1994; Sprengelmeyer et al., 1997).

The decreased ability to detect social cues of potential contamination via disgust may be based on impaired brain circuits seen in neuroimaging studies (Oaten et al., 2009). "A different neural circuit that primarily involves the Insula and the Basal Ganglia serves recognition of disgust signals" (Calder et al., 2001, p. 352). These are considered key brain regions involved in the core pathophysiology of OCD (Grisham et al., 2010, p. 258). Another is the cerebellum, which the five primary emotions have been mapped to overlapping, but distributed networks in neurobiological imaging. "The cerebellum as a critical component of the distributed neural circuits subserving intellect and emotion" (Schmahmann, 2010, p. 240).

In a comparison of OCD to Tourette's Syndrome with and without OCS, only the groups with obsessive-compulsive behaviors showed deficits in recognition of facial expressions of disgust (Sprengelmeyer et al., 1997). "This is consistent with the neurology of OCD and with the idea that abnormal experience of disgust may be involved in the genesis of obsessions and compulsions" (Sprengelmeyer et al., 1997, p. 5).

The neurology of diseases associated with obsessive-compulsive symptoms suggests the involvement of fronto-striatal regions likely to be involved in the mediation of the

emotion of disgust, suggesting that dysfunctions of disgust should be considered alongside anxiety in the pathogenesis of obsessive compulsive behaviours.

(Sprengelmeyer et al., 1997, p. 2)

Further research is needed to “assess the extent to which ToM and other social cognitive difficulties encountered in the context of OCD symptoms relate to specific neurocognitive deficits” (Grisham et al., 2010, p. 258). The neurocognitive correlates of different OCD symptom subtypes have yet to be mapped and may involve different genetic and pathophysiological processes.

The subjective experience of disgust is reported frequently by OCD sufferers as a physiological experience of revulsion that may entail sensations such as nausea, physical revulsion with proximity to unclean objects or people due to fear of contamination, and involuntary vomiting. Rozin et al. (1994) identified three subtypes of disgust that are interrelated through this physiological response.

Animal-origin disgust reflects a rejection of any suggestion that humans are animals. The desire not to be considered an animal may itself have as its root a concern with death, an animal property shared by humans that is particularly unsettling and one that we try to put out of our minds. (Rozin et al., 1994, p. 870)

Reminders of human mortality from experiences of physical disgust of our animal-like physical bodies have been correlated to OCD in several studies. Animal-origin disgust is based on physiological processes of eating and defecation and the need to keep them separate to protect health. Even the language related to disgust is a reminder of the physiological processes at play with such descriptors as “distasteful,” “gross,” etc. It is unrelated conceptually to the two other more abstract types of disgust that are cognitively based rather than primarily physiological but

which evoke a similar physiological response. Multiple studies have confirmed an intrinsic correlation between interpersonal contamination and moral disgust (Rozin et al., 1994).

Interpersonal contamination is “a disgust elicited by physical contact, directly or indirectly, with strangers or undesirable people” (Rozin et al., 1994, p. 871). It is related to fears of contamination and disease but also extends to non-physiological contact such as social relationships. Moral disgust is experienced as mental revulsion related to thoughts of such morally averse subjects and acts as animal and child abuse, incest, infidelity, murder, and desecration of corpses that are antisocial in nature and threaten one’s safety with increased proximity (Rozin et al., 1994).

All of these varied disgust elicitors may have in common simply that we reject them from the self. They may simply represent the attachment (in cultural evolution and development) of a powerful rejection/offense system to an expanding set of undesirable entities. (Rozin et al., 1994, p. 871)

The result of feeling these types of disgust is a physiological reaction similar to that experienced with disgust of dirty or contaminated physical substances (Coughtrey, Shafran, Lee, & Rachman, 2012). Both physical sensations of disgust and moral disgust via mental contamination were experimentally induced emotionally with suggestion of contact contamination in a recent study (Üzümcü et al., 2023). Females had higher disgust sensitivity and reported increased levels of mental contamination after listening to a fictional account of unwanted sexual contact. “Feelings of MC induced by non-consensual kiss scenarios mediated the relationship between individual vulnerability factors and fear of contamination. (Üzümcü et al., 2023, p. 9596).

However, the mediating variables have not yet been clearly identified between disgust sensitivity and mental contamination via experimental suggestions of immorality. In an experimental induction of fear of contamination with a suggestion of contact with a clean but immoral individual, “neither anxiety sensitivity nor disgust sensitivity could predict feelings of dirtiness over and above symptoms of physical contamination, and disgust sensitivity was not significantly correlated with feelings of dirtiness” (Radomsky & Elliott, 2009, p. 1009). While individual differences in sensitivity to disgust and anxiety were unrelated to feeling of dirtiness, disgust itself, very much is.

The immediacy of disgust as a strongly experienced emotion likely arises from it being evolutionarily distinct in its threat-perception and safety motivating properties “evoked by objects/people that possess particular...features that connote disease” (Oaten et al., 2009, p. 303). Animal behavioral studies have found four domains in which disease avoidance is readily apparent, “territorial integrity, sex, protection of the young, and food” (Oaten et al., 2009, p. 309). Human cultures have similar social rules that serve to limit disease exposure, such as “wariness of strangers, particular sexual practices, child-rearing (hygiene) practices, and food related behaviors” (Oaten et al., 2009, p. 309). Across religions, more fundamentalist sects commonly have such prohibitions for their members that are intended to be followed quite literally and for which punishment is prescribed when violated. Tight social control on group membership serves to protect the religious community.

Violations of societal norms that may subserve a disease-avoidance function, notably relating to food and sex, act as reminders of simple disgust elicitors and thus generate disgust and motivate compliance. (Oaten et al., 2009, p. 303)

Violation of social norms can elicit disgust in humans, particularly if it represents harm to “innocents” such as children, or physically weaker members such as women, the disabled, and the elderly. “Moralization is the process through which preferences are converted into values, both in individual lives and at the level of culture” (Rozin, 1999, p. 218). At a societal level, cultures spread behavioral and attitudinal norms through a process of moralization where rules are enforced as “a means of managing disease-related threats, most notably relating to ... the care and management of those vulnerable to disease (typically infants and children); ... sexual behavior; and ... food (with the attendant risks for contagion)” (Oaten et al., 2009, p. 315). Then socialization instills these moralized norms at an individual level through normative group processes until they have internalized them as personal codes of ethical conduct.

Moralization adds a threat of group rejection and may evoke not just disgust, but fear and negative self evaluations (Oaten et al., 2009, p. 303). Disgust is such a powerful cue that moral judgments have been shown to be harsher when disgust is manipulated, both environmentally, with sensory cues and also via violation of societal norms of conduct. “Ambient disgust (fart spray or a very dirty desk) can increase the severity of moral judgments” (Oaten et al., 2009, p. 316).

Morally invoked disgust is more complex and evokes several negative emotions, including “a component of anger” (Oaten et al., 2009, p. 316). The protective purpose underlying the negatively valenced emotions are clearly related to evolutionary purposes that preserve health in a multitude of ways, mainly by a strategy of avoidance. Disgust’s purpose is in avoiding sickness and risk of death, whether it be directly through contagion and disease, or a metaphorical social death of group rejection (Oaten et al., 2009).

Do moral transgressions really make people feel disgusted? Research participants act as if they do. At least symbolically, people show behaviors of disgust based on moral cues.

Participants asked to recall unethical acts “were more likely to complete word fragments with cleaning-related words, more likely to take a gift of an antiseptic wipe over a pencil, and less likely to ... help another student ... if they had washed their hands prior to being asked” (Oaten et al., 2009, p. 315).

In the first such study using fMRI to investigate neural network activation shared by both direct experience and empathy, Wicker et al. (2003) experimentally induced olfactory disgust and then compared results with fMRI of observing a face with the look of disgust. Both conditions “activated the same sites in the anterior insula and to a lesser extent in the anterior cingulate cortex” (p. 655). The observed emotion “activates a neural representation of that emotion ... providing a unifying mechanism for understanding the behavior of others” (p. 655). In short, “seeing someone else’s facial emotional expressions triggers the neural activity typical of our own experience of same emotion” (p. 661).

As one of the five primary emotions (happiness, anger, disgust, fear, and sadness), disgust can be elicited directly by correlation to a noxious stimulus and indirectly through inferential reasoning and similarities to one. “People use disgust metaphorically to draw a comparison with objects that are prototypically offensive,” i.e., for stereotypical morally bankrupt characters, such as “a corrupt politician, a sleazy person, an ambulance-chasing lawyer” (Oaten et al., 2009, p. 315). While the felt emotion may be subjectively weaker than disgust from a physical stimulus, multiple human neuroimaging studies have shown “a link between disgust and moral judgment...resulted in patterns of neural activation that significantly overlapped with those generated by descriptions of core elicitors” (Oaten et al., 2009, p. 316).

Distinct interwoven networks of cortical and subcortical regions of the brain are activated by the primary emotions (Baumann & Mattingley, 2012). “All five emotions evoked spatially distinct patterns of activity in the posterior lobe of the cerebellum. We also detected overlaps between cerebellar activations for particular emotion categories, implying the existence of shared neural networks” (Baumann & Mattingley, 2012, p. 805).

Complex “mixed” emotions may reflect the partial overlap of these emotional systems. “For instance, we detected partial overlap in activations associated with fear and anger (paravermal lobules VI and Crus I), anger and disgust (vermal lobule IX), and happiness and sadness (vermal lobule VIIIA).” (Baumann & Mattingley, 2012, p. 810). The amygdala regulates the “threat-related emotions of fear and anger,” while the “insula is involved in reactions of disgust” (Baumann & Mattingley, 2012, p. 805). “Anger and disgust were also the only emotions that led to statistically significant activity in the insula, which tentatively points to a partially shared neural network” (Baumann & Mattingley, 2012, p. 809).

It would be fascinating to watch obsessional thoughts of scrupulosity as they activate core emotional process on fMRI and try to map them to the primary emotions as the patient talked through their obsessions. This is likely impossible, however. It would be more practically applicable to use fMRI to develop therapies to address disgust. “A further goal for future investigations should be to determine whether emotion related activity in the cerebellum can be modified by task instructions or other cognitive processes that are under voluntary control” (Baumann & Mattingley, 2012, p. 810).

Mental Contamination

The primary emotion of disgust has been shown to result in emotional reasoning leading to the experience of mental contamination (MC), “the feeling of being polluted, dirtied, infected

or endangered in the absence of actual physical contact with a contaminant and is accompanied by negative emotions such as shame, guilt, disgust and impurity” (Coughtrey, Shafran, Lee, & Rachman, 2012, p. 163). MC “always has a human source and is caused by a violation such as degradation, betrayal, emotional abuse, humiliation.” (Rachman et al., 2012, p. 587).

MC has further been strongly linked to the basic emotion of disgust over multiple experimental studies (Fong & Sündermann, 2020; Millar et al., 2023). MC also increases severity of perceived threat from commonplace objects, thoughts, and experiences (Cisler & Koster, 2010; Deacon & Maack, 2008). MC is highly prevalent in contamination obsessions and washing compulsions (Coughtrey, Shafran, & Rachman, 2014; Millar et al., 2023). It may be profoundly more prevalent than previously appreciated with nearly half of a non-clinical sample with OCS reporting some variation of MC (Radomsky et al., 2014).

A preliminary study of the presence of mental contamination in a sample of 177 people with obsessive compulsive symptoms found that 10% reported mental contamination in the absence of contact contamination, 15% reported contact contamination in the absence of mental contamination and 36% people experienced clinically relevant symptoms of both mental and contact contamination.” (Radomsky et al., 2014, p. 182)

MC is related to the OCD subtype of “unacceptable thoughts” (Jacoby et al., 2018) that also encompasses the moral and religious obsessions of scrupulosity. “Mental contamination is thought to most commonly co-occur with a perceived association with impurity or immorality” (Coughtrey, Shafran, Lee, & Rachman, 2012, p. 164).

An individual who experiences MC may feel dirty and contaminated just from imagining a subjectively unpleasant, immoral, or disgusting stimulus or scenario (e.g., “What if I were to commit incest?”, images of feces). These thoughts/images/ideas result in feelings

of discomfort, anxiety, and uncleanness, as well as urges to wash, neutralize (e.g., replace a “dirty” thought with a “clean” thought), or avoid situations or thoughts that trigger MC. (Jacoby et al., 2018, p. 9)

MC is also commonly seen after having persistent thoughts or an experience in which the sufferer feels “personally betrayed, wrongfully accused, humiliated, ashamed, degraded or manipulated” (Coughtrey, Shafran, Lee, & Rachman, 2012, p. 164). Many studies have induced MC through the suggestion of psychological violations, such as imagining non-consensual kiss scenarios. In those studies, MC “mediated the relationship between individual vulnerability factors and fear of contamination” (Üzümcü et al., 2023, p. 9596).

Mental contamination is also hypothesized to trigger “morphing”; the fear of becoming contaminated or tainted by close proximity to a person perceived to be undesirable or being somehow altered by their characteristics....Morphing is closely linked with the concept of “mind germs”; the idea that undesirable characteristics are airborne and can be transmitted in a similar way to infectious illness, and thus a fear of morphing can be evoked simply by looking at the feared person. (Coughtrey, Shafran, Lee, & Rachman, 2012, p. 164)

Like contamination from physical contact, the cognitions of MC have an unusually high generalizability across different contexts and subjects, as well as remaining strongly aversive across successive degrees of removal from the original context and the passage of time (Coughtrey, Shafran, & Rachman, 2014). These “properties of contagion” may be closely related to sympathetic magic, “implausible beliefs regarding the transmission of contamination.” (Coughtrey, Shafran, & Rachman, 2014, p. 33).

There are two principles of sympathetic magic: 1) that “things that have once been in contact continue ever afterwards to act on each other”, i.e., “once in contact always in contact,” and 2) “that the most familiar expression of contagious magic is the magical sympathy which is supposed to exist between a man and any severed portion of his person, whoever gets possession of human hair or nails may work his will, at any distance, upon the person from whom they were cut” i.e., “like produces like.” (Frazer, 1922, as cited in Coughtrey, Shafran, & Rachman, 2014, p. 33)

MC is related to magical ideation and TAF in the belief that not just proximity, but the fact of having a mental image of contamination increases the likelihood of actual contamination (Fergus, 2014; Rachman, 2004). MC cognitions increase sensitivity to both overall distress and disgust specifically (Deacon & Olatunji, 2007), as well as the propensity to equate the cognition with disgust (Melli et al., 2014; Radomsky, Rachman et al., 2014). “In extreme cases of morphing, a person may fear that they may acquire these unpleasant characteristics and be changed into the undesirable person themselves” (Coughtrey, Shafran, Lee, & Rachman, 2012, p. 164).

Moral dissonance is the cognitive appraisal of when a person’s behavior falls short of their moral code. It is positively correlated to a negative self-concept, the “feared self.” To test if moral dissonance is causative for MC that has been shown to induce OCD obsessions, Krause and Radomsky (2023) experimentally manipulated MC by inducing perceptions of violation of one’s moral code of conduct. The suggestion of a moral lapse with implications for a resulting negative self-appraisal was sufficient to induce feelings of MC, “feeling dirty,” even when the experimental stimulus had no suggestion of physical contact or contamination. Previous research had established that MC could be induced by experimentally by thoughts of contact with bodily

fluids or feelings of betrayal due to unwanted sexual contact, which could induce feelings of disgust or physical impurity that were wholly mental (Millar et al., 2016). Further, in the moral self-violation experiment, the moral inducement of MC did not produce an urge to wash or otherwise mentally remove a physical contaminant. The feeling of MC was entirely related to personal moral failing, reinforcing previous findings about the relationship of sensitive domains of self-concept to MC playing an intricate part in OCD cognitions (Aardema et al., 2013; Doron, Kyrios, & Moulding, 2007; A. Radomsky & Elliott, 2009; Radomsky, Rachman et al., 2014).

Mental contamination also often has a moral quality: those affected will often equate being dirty with being a bad person, being worthless or being immoral. Not surprisingly, the emotions accompanying this sense of pollution are varied and include not only disgust and anxiety but also shame, humiliation and contempt. Contact contamination usually lacks this moral quality. (Herba & Rachman, 2007, p. 2805)

Both MC and disgust also have been associated with posttraumatic stress (PTS) and OC symptoms occurring separately as well as together (Ojserkis et al., 2018). “Future research should include various subtypes of MC as this will strengthen our ability to draw conclusions about the phenomenon” (Herba & Rachman, 2007, p. 2811).

Krause and Radomsky (2023) report that though their study “was designed to target moral self-violation, it may have also simultaneously manipulated other related cognitive processes such as moral dissonance and guilt sensitivity” (p. 831). The Moral Dissonance Model (MDM) “explains how dissonance can occur when the actual behavior—the response to a morally challenging situation—contradicts with morally desirable behavior” which, left insufficiently addressed, can result in moral injury (Te Brake & Nauta, 2022, p. 1). Krause and

Radomsky (2023) recommend future research elucidate mechanisms driving feelings of MC more fully.

MC and its effect on inferential reasoning present in moral and religious obsessions play a key role in maintenance of scrupulosity obsessions (Doron, Kyrios, & Moulding, 2007). Future research could compare scrupulosity obsessions with other OCD obsessional types to assess comparative strength of this association and help identify further mediators of the relationship. Further research should focus on developing a bi-directional model of disgust, MC, and moral self-appraisals to help determine what is the most appropriate focus for intervention to effectively disentangle feelings of moral failure and MC from a self-image that sustains obsessional thinking. To impact scrupulosity, this research should be informed by religious belief and practice as a context across different religions and cultures for understanding variance in factors that potentially mediate the effect of MC on scrupulosity.

Fear and Threat Overestimation

Fear is a primary emotion in humans, yet as a stand-alone construct it is conspicuously absent from the literature of OCD. When mentioned, it is usually in the context of anxiety or avoidance of the object of certain obsessional concern, such as “fear of self” (Melli et al., 2016) or “fear of compassion” (K. Neff, 2003). Or as in one recent study, it is used as a bucket for all sorts of uniquely personal obsessional concerns such as “an idiosyncratic fear deemed ‘moderately anxiety-provoking’” (Berman et al., 2021, p. 1). So, unlike disgust, another primary emotion that has received much research attention recently, fear remains to be investigated more fully to determine if people with OCD are simply more fearful of basically everything than people without OCD. Due to its correlation with insecure attachment (Boysan & Çam, 2018), that seems highly likely. However, operationalized as anxiety, it is used extensively and may

have been implicitly disconnected from anxiety when OCD was separated into its own obsessive–compulsive spectrum in the DSM-5. However, anxiety encompasses much more than just fear in a similar way that sadness and depression are not equivalent. An emotion demands an object that it is felt in response to, and in the study of OCD, that thing is threat (Berman et al., 2019; Blanchard et al., 2011; Boyer & Bergstrom, 2011; Cisler & Koster, 2010; Doron, Sar-El, & Mikulincer et al., 2012; Fiddick, 2011). Threat perception is an instinctive, physiologically-based mental process, and in OCD it is hyper-activated (Cisler & Koster, 2010).

The relevance of threat assessment to OCD is an area that is understudied, in general, and threat assessment related to symptoms of scrupulosity has not yet been researched. However, before that can be accomplished, an important alternative theory could present an evolutionary paradigm that fosters wellbeing as well as psychopathology when it goes awry.

One of the most basic of the evolutionarily advantageous neurobiological systems in the animal kingdom is the security motivation system, a neurological loop in the brain that remains somewhat independent of other mental processes as it remains instinctively alert to sensory input that signals a potential threat to health or safety (Szechtman & Woody, 2004, 2006). There could be important linkage based on findings of this evolutionarily advantageous neurological system that focuses thoughts and behaviors on mitigating and responding to the perceived risks to one's imminent safety and security due to “uncommon, but potentially catastrophic events such as predation and disease” (Woody & Szechtman, 2011, p. 1020).

Animals must engage in sensitive risk assessment, usually on the basis of subtle and indirect cues, to gauge changes in potential danger (Lima and Bednekoff, 1999b). This assessment must occur even in the absence of any tangible evidence of the presence of a predator (Brown et al., 1999), and it involves the evaluation of unpredictable or unclear

stimuli of uncertain significance (Blanchard and Blanchard, 1988). (Woody & Szechtman, 2011, p. 1020)

Risk assessment is a “core process in the choice of specific defenses, such as flight, freezing, defensive threat and defensive attack, that counter the threat and minimize the danger it poses” (Blanchard et al., 2011, p. 991). Because threats to life and limb are relatively rare events, the security motivation system is biased toward giving attention to the most threatening sensory input, and in people with anxiety disorders, these signals become hyper-aroused (Marstaller et al., 2021). Research has shown that “attentional biases towards threat co-occur with chronic anxiety” (Cisler & Koster, 2010, p. 205). One model of anxiety disorders places its neurological basis in the amygdala and its associated structures due to fear conditioning. However, there is “a distinction between fear-provoking immediate and anxiety-provoking potential threats, with the amygdala processing immediate threats and the cingulate cortex (and insular) processing potential threats” (Fiddick, 2011, p. 1007).

This automatic preference to pay attention to potential threats and respond with increased anxiety such as hyper-arousal and physical agitation could be due to the same structures of the brain handling critical feedback loops of sensory input, such as the brain’s cortico-striatal-thalamic neural circuits (Purty et al., 2019), that are negatively impacted in people with OCD and anxiety disorders, in general. “Attentional control ability likely underlies difficulty in disengagement, emotion regulation goals likely underlie attentional avoidance, and both of these processes may be neurally centered around prefrontal cortex functioning” (Cisler & Koster, 2010, p. 203). Difficulty modulating attention and emotions is central to the experience of anxiety, and over-activation of these areas of the brain is constantly stimulated by hyper-arousal.

The neural pattern underlying threat includes structures associated with interoception (such as the anterior insula and anterior cingulate cortex) and somatosensation (such as the secondary somatosensory cortex, thalamus, and cerebellum). In contrast, the brain activation underlying safety includes structures associated with stimulus-independent processes in the cortical midline (such as dorsal anterior and ventromedial prefrontal cortices, posterior cingulate and retrosplenial cortices) and temporo-parietal regions (such as the hippocampus, inferior and middle temporal cortices, inferior parietal cortex, and precuneus), as well as structures associated with somatosensation (such as the primary somatosensory cortex and posterior insula). (Marstaller et al., 2021, p. 15)

Human evolution favored group cooperation, and “although such sociality provides many benefits, it also introduces a set of potential threats. Other people possess the capacity, and often the inclination, to do harm. Mere proximity to others exposes individuals to potential physical attack and contagious disease” (Neuberg et al., 2011, p. 1043).

The security motivation system is also a protection-from-disease system that selectively focuses attention on others who show signs of increased infection risk. “It activates disease connoting cognitive associations and guides inferential processing in such a way that those individuals are judged more harshly” (Neuberg et al., 2011, p. 1048). When physical disgust, and even moral disgust, is felt when confronted with signs or symptoms of pathogens or disease in others, it leads to avoiding physical or social contact those perceived to be threats to health, even if the signs are relatively superficial or non-contagious (Fong & Sündermann, 2020; Melli et al., 2014; Neuberg et al., 2011). This tendency is stronger when the contaminated others are members of another social group than one’s own (Oaten et al., 2009).

Whereas in animals the threat detection system is attuned to visual and auditory stimuli, in humans it is also attuned to social cues, “a feature of human defensive behavior, particularly in association with ambiguity” (Blanchard et al., 2011, p. 991). “Because threat cues are not perfectly diagnostic, errors of interpretation are biased toward inferring threat” (Neuberg et al., 2011, p. 1048). Recall that the purpose of the system is to protect from threat of disease or death. Neuberg et al. (2011) theorize that in addition to a robust physical immune system, humans evolved a “behavioral immune system—a system designed not to fight pathogens post-infection but rather to avoid infection in the first place” (p. 1045). Remaining hyper-vigilant to potential pathogen exposure could lead to constant rumination as threats are weighed and responded to.

Likewise, our human social systems are “biased in a risk-averse manner, erring toward precautionary responses even when available cues only heuristically (and often wrongly) imply threat” (Neuberg et al., 2011, p. 1043). Rumination is selective attention to bothersome thoughts that lend to weightier appraisals of significance (Cisler & Koster, 2010). “Rumination may be a specifically human form of (social) risk assessment, more often expressed by women, and highly associated with anxiety” (Blanchard et al., 2011, p. 991). This results in an overestimation of imminent threat, a cognitive distortion that selectively directs attention toward ambiguous threat detection in the absence of distinct sensory data that may suggest otherwise. “This shift in attention may lead to increased perception of threat cues and threat overestimation” (Deacon & Maack, 2008, p. 538).

In this scenario, OCD behaviors are in response to “normal activation of the precaution system” which “explains rituals in healthy individuals” (Stein & Nesse, 2011, p. 1076). When completed, the threat-detection system provides a sense of safety as well as satisfaction of the threat-monitoring behaviors through a ritual enactment when appropriate precautions are taken.

Hence, “rituals generate a sense of controllability and consequent reduction in fear” (Stein & Nesse, 2011, p. 1076).

The problem for people with anxiety disorders is that this system is biased toward awareness and does not have an automatic cue for turning back to normal attention. It makes perfect sense for prey animals that must remain alert and aware of any changes to the environment that signal threat. Think of a deer eating peacefully in a meadow and raising its head now and again to scan for predators (Woody et al., 2005). Until it detects a movement or smell, it continues to eat. The safety motivation system functions well enough to graze because the scanning behavior is not terminated under normal conditions. Likewise, in humans, awareness of ambient threat is a feedback system in which it remains activated until threat is confirmed, and it can never be fully shut down (Woody et al., 2005). “The task of security motivation is open ended, in the sense that no consummatory stimuli can exist in the real world to indicate the absence of potential danger” (Szechtman & Woody, 2006, p. 103).

This presents yet another paradoxical trap for the scrupulous. Where no objective evidence exists that can confirm without doubt that one will achieve life after death, the patient is trapped in an open-ended disconfirmation loop of security motivation. Further, the threat of death is omnipresent and confirmatory evidence of one’s eventual demise is dependable.

One of the hardships of religious OCD is that there is, in effect, no proving a negative: if there is no evidence that your soul can be saved and you just have to have faith, but your faith is complicated by religious OCD, then isn’t that the same as open-ended security motivation? (L. Gay, personal communication, October 5, 2024).

Within Christianity, it seems particularly cruel to answer such a concern with the advice to “have more faith” when one’s lack of faith is the perceived cause of such troubles. If such

faith was readily available, then the problem would already have been solved. Further, advice to pray to receive more faith is likely to increase compulsive prayer which is more unlikely to increase one's faith due to the continual open-ended disconfirmation of receiving more faith.

Evolutionary Theory of OCD

Woody and Szechtman (2004, 2006, 2011) propose an alternate theory of OCD as an evolutionary adaptation to living under constant threat of annihilation, even when the odds are quite low at any given time. They posit that OCD symptoms reflect an over-abundance of normal behaviors due to security-motivational system malfunctions. "When the system appraises a situation as potentially dangerous, it produces a motivational state experienced as anxiety and activates a set of biologically based, species-typical behaviors having the goal of protection from potential threat to self and others" (Szechtman & Woody, 2006, p. 105).

Species-typical behaviors such as cleaning, checking, and hoarding that would normally satisfy the need for a sense of security become overused in OCD. "We are built to recognize fragments of real threats (undoubtedly elaborated through learning) and that those fragments evoke searching and checking rather than the more commonly discussed defensive responses, such as escape" (Szechtman & Woody, 2004, p. 121). Further, these behaviors "drive security-related thoughts, through the normal route of performing specific security-related behaviors" (Szechtman & Woody, 2004, p. 122).

Because the security motivation system is oriented toward potential, rather than present, danger, reality-based consummatory stimuli for it do not exist and thus cannot serve as a terminator. We propose that what shuts down motivated security activity is an internally generated "feeling of knowing" that serves both as the phenomenological sign of goal-attainment and also as the physiological mechanism that terminates security

motivation and the experience of anxiety. In such an open-ended motivational system, the feeling of knowing stems directly from performance of the behaviors evoked by the motivation. (Szechtman & Woody, 2006, p. 105)

However, that end signal—that “feeling of knowing” never comes. Rather than a signal of safety, which “suggests a mood state induced by environmental stimuli” (Szechtman & Woody, 2006, p. 115), it is the lack of any signal that increases threat perception, in the same way that the deer continues to scan the horizon. Objective reality of a lack of a threat does not ensure none is there nor ever will be and cannot generate that feeling of finality required for an emotional state of safety to be obtained. Hence, the evolutionary model “focuses not on the origins of unwanted, intrusive thoughts but on the inability to turn them off” (Szechtman & Woody, 2004, p. 122).

In scrupulosity, prayer commonly becomes compulsive due to a failure to feel that one’s prayers have been heard by God, or that God has chosen not to act on those expressed desires. Religions vary on their theology of prayer, but without a direct confirmation of their efficacy, it is likely that such a sense of completion may not be felt absent a perceived sign or word from God. This could lead to compulsive prayer being used to decrease one’s anxiety when an answer seems to be unforthcoming.

A rather elegant explanation for preventative and avoidance behaviors commonly seen in OCD is also offered for consideration (Woody & Szechtman, 2011). “They may also learn to engage in relatively frequent, smaller scale prophylactic rituals that proactively help to prevent the system from becoming activated (see Eilam et al., 2011)” (Woody & Szechtman, 2011, p. 1029). This offers a more parsimonious explanation of such behaviors that are usually attributed

to cognitive biases of magical thinking or thought-action fusion in the cognitive theory despite the person with OCD knowing full well that their behaviors are illogical.

However, in the case of scrupulosity, compulsive prayer may never be perceived as illogical or excessive depending on one's personal theology which may or may not vary from standard interpretations of religious belief. This complicates the security-motivation system further in that the three Abrahamic faiths stress reliance upon prayer as a primary coping mechanism for life's distressing circumstances as well as a strong prophylactic against further difficulties manifesting in one's life. Once again, scrupulosity seems to offer a paradox of self-fulfilling prophecy wherein one's OCD behaviors are reinforced quite naturally by religious belief while also decreasing one's sense of peace while doing it.

Another important secondary effect is the development of avoidant and precautionary behaviors that help to prevent the activation of the security motivation system in the first place. That is, given difficulty in shutting down security motivation once it has become activated, patients with OCD may learn to avoid stimuli that suggest danger and could potentially activate the system. (Woody & Szechtman, 2011, p. 1029)

Whereas anxiety disorders manifest as a failure to initiate self-soothing behaviors, OCD represents a failure in termination. "Obsessive compulsive disorder results from the failure of a satiety-like mechanism, such that security-related behavior that would normally terminate activation of the system fails to do so" (Woody & Szechtman, 2011, p. 1030). This satiety-signal construct, which they term "yedasentience", has been compared in other research to various other senses of the feeling of knowing (Szechtman & Woody, 2004, p. 111). Without yedasentience, attempts to escape from intrusive thoughts by avoidance will only intensify the threat-detection system's internal alarm as a sense of escape from threat is not achieved.

The predicament for the OCD patient is a deceptively counterintuitive one: Problems in thought cannot readily be corrected through more thought (higher cognitive processes), even with great effort. This is because, in the terminology of the present model, yedasentience is not an output of volitionally directed higher cognition; instead, it normally stems from enacted motor behavior. (Szechtman & Woody, 2004, p. 122)

When this pattern of failing to achieve a sense of completion becomes chronic, “other important problems in cognition and behavior may eventually develop as secondary elaborations of this core, primary deficit” (Woody & Szechtman, 2011, p. 1029).

In a reversal of the normally understood process of obsessions driving compulsions, Woody and Szechtman hypothesize that “because security-related acts, together with the satiety-like feeling they would normally evoke, do not work for patients with OCD, they likely attempt to compensate by substituting cognitions (i.e., obsessions) for behavior” (Woody & Szechtman, 2011, p. 1029). OCD behaviors are likewise caught in a no-feedback loop with no threshold to reach to terminate the repetitive process.

Rather than doubting their senses, OCD patients essentially doubt their own behavior. They disbelieve their behavior because it fails to produce the normal internal feedback that should have released them from the grip of activated security motivation. In addition, because of the open-ended nature of the security motivation system, which disconnects it from immediate environmental control, there is indeed a Berkeleian predicament for OCD patients: They cannot look to the environment to compensate for the terminator that they cannot generate endogenously. Thus, their recourse is to repeat the behavior over and over, in an attempt to overcome a dysfunctional feedback mechanism and eventually dampen the driving motivation. (Szechtman & Woody, 2004, p. 123)

One potential way to address the evolutionary theory of OCD conundrum is by inducing adequate yedasentience in therapy. “Ritualistically elaborating or increasing the difficulty of the security-related behavior may increase its capacity to produce yedasentience and help terminate the motivational state, shortening the duration of the behavior. This strategy is somewhat akin to ‘ordeal therapy’” (Szechtman & Woody, 2004, p. 123).

The evolutionary theory is generalizable to other psychopathologies, which may also manifest due to errors in the security-motivation system but made at different stages of the disease- and threat-avoidance mechanism (Neuberg et al., 2011; Woody et al., 2005).

An extreme lowering of thresholds for identifying cues and events as threats, or a difficulty “turning off” precautionary systems, may contribute to psychological disorders such as post-traumatic stress disorder (linked to the self-protection system), some forms of obsessive–compulsive disorder (e.g., handwashing, linked to the disease-avoidance system, and post-partum obsessive–compulsive disorder, linked to aspects of the kin-care system), social anxiety disorder (linked to the social affiliation system), and the like. (Neuberg et al., 2011, p. 1048)

The evolutionary theory also integrates neuropsychological explanations of excitatory and dampening processes of the system’s activation. Biological stress during the critical period of neurological development may be permanently altered by high levels of cortisol (Woody & Szechtman, 2011).

The physiology of security motivation suggests ways in which early upbringing may predispose an individual toward the development of certain kinds of psychopathology through the calibration of the security motivation system (see Boyer & Bergstrom, 2011; see Lienard, 2011). Studies with animals have demonstrated that early-life experiences

are a powerful determinant of life-long reactivity of the HPA axis (Arnold et al., 2004; Blas et al., 2007; Francis et al., 1999). Given that the operation of the HPA axis is integral with the security motivation system, early experience could have a substantial impact on later reactivity to potential threat and vulnerability to dysfunction of this system. (Woody & Szechtman, 2011, p. 1030)

These theories have yet to be tested empirically, but are rather compellingly advocated as the result of evolutionary pressures and adaptations toward survival. An important implication of this theory for scrupulosity is the biggest, baddest threat to survival of all, the threat of annihilation that is ever-present with humankind's awareness of our own eventual death. This will be explored further pertaining to terror management theory as an attempt to ameliorate its effects with scrupulous adherence to OCD behaviors meant to distance oneself emotionally from this inevitable fate.

Looming Vulnerability Cognitive Model

Another maladaptive survival technique is to learn to perpetually expect the worst. Early childhood developmental stress has an effect on not just the neurobiological substrates, but also learning theory-related paired association of threats and social cues . “Human children go through a long maturation period, with major changes in potential dangers and reactions. From an evolutionary perspective, we would expect children to develop age-appropriate threat-detection and responses” (Boyer & Bergstrom, 2011, p. 1034).

OCD or social anxiety disorder can be considered pathologies of threat detection. These symptoms typically begin to manifest in childhood and early adolescence as exaggerated forms of typical fear or coping responses. “Evidence for developmental aspects of fear-targets and anxiety suggests a complex but stable pattern whereby specific kinds of fears emerge at different

periods of development. This developmental schedule seems appropriate to dangers encountered repeatedly during human evolution” (Boyer & Bergstrom, 2011, p. 1034).

This developmentally impacted set of beliefs has been theorized to coalesce in a schema of cognitive distortions known as the looming vulnerability model (Elwood et al., 2011; Riskind et al., 2000; Riskind & Williams, 2005). This fearful cognitive distortion is “a tendency to construct dynamic expectations (i.e., mental scenarios) of negative events as progressively increasing in danger and rapidly escalating in risk” (Elwood et al., 2011, p. 40). This cognitive schema focuses on the dynamic nature of threat assessment and is theorized to play a role in development of OCD due to “the perception of threat as rapidly approaching and intensifying” (Riskind et al., 1997, 2000). This leads them to “choose more passive and avoidant coping skills, thereby leading to a negative reinforcement pattern” (Elwood et al., 2011, p. 41).

The looming vulnerability model proposes that individuals make mental representations of potentially threatening objects, which allow them to create expectations about potential changes in the severity, the distance between themselves and the threat object, and one’s ability to cope with the potentially threatening stimulus. (Elwood et al., 2011, p. 41)

Looming vulnerability as a cognitive style “functions as a danger schema to produce specific vulnerability to anxiety, but not to depression” (Riskind et al., 2000, p. 837). Anxiety-related cognitive schemas affect how people process threats, elaborate on potential related outcomes, and mentally anticipate future threats. In a study manipulating a looming style of cognition, looming vulnerability functioned as a “danger schema,” because it “affects memory for both verbal and visual threatening material” (p. 839) and “may be a result of biased implicit memory for threat-related information or increased salience of threat-related information in cognitively vulnerable individuals” (Riskind et al., 2000, pp. 844–445).

In another experimental study, looming vulnerability remained significantly correlated with OCD symptoms even after controlling for beliefs and cognitive distortions usually associated with OCD (Elwood et al., 2011, p. 41). It also significantly predicts increases in OCD symptom severity when controlling for intolerance of uncertainty and depression (Elwood et al., 2011; Riskind & Williams, 2005).

A promising outcome for potential therapeutic gains against the looming vulnerability model was found by introducing a mental visualization of “freezing” a threat to stop its advancement and decrease the sense of inevitability. “Mental imagery was used to reduce the rate at which threat can advance by means of instructions to imagine that contamination was “frozen” in place and unable to move” (Riskind et al., 1997, p. 757). Taken together, these studies indicate that looming vulnerability is a separate construct from other cognitive biases seen in OCD, and should be considered a rich target for future research due to its potential malleability as a dysfunctional mental schema.

The looming vulnerability model may underscore scrupulosity in the sense that pessimistic existential concerns are the purview of religion. A maladaptive lack of confidence in the future could contribute mightily to death anxiety and fears of rejection by God and increase in severity as a consequence. Future research is advised to explore the looming vulnerability cognitive style and its correlation to attachment to God and the effect of both on affective states and personality traits impacted by scrupulosity.

Relevance of Trauma

An association between trauma and obsessive–compulsive behavior was first noted by Pierre Janet as the loss of “reality function” (Pitman, 1987, p. 229) commonly seen with patients with OCD “under the influence of physical or mental traumas” (Pitman, 1987, p. 230). Janet

described this behavior as a type of psychosis (Pitman, 1987). Freud also surmised that anxiety, including obsessional neurosis, was likely related to experiences of extreme stress, threat of danger or harm, and loss (Freud, 1927).

Intrusive thoughts and memories of traumatic events and attempts to avoid or suppress reminders are key cognitive symptoms of post-traumatic stress disorder (American Psychiatric Association, 2017, 2022). Wegner et al.'s (1987) theory of thought suppression is particularly salient to a discussion of OCD considering the increased negative affect resulting from experiencing trauma and lack of emotional salience in his experimental conditions. The cognitive process leading to increased intrusions seems to be very similar to the highly emotionally charged thoughts of trauma as the personally meaningful negative experience of unwanted mental intrusions in OCD. Wegner et al. (1987) commented in their analysis of the white bear experiment that thought “suppression may block a natural tendency to find meaning in traumatic events and that this can hamper effective coping processes” (Wegner et al., 1987, p. 12).

Many researchers have concluded that comorbid clinically-significant PTSD and OCD “may be related to severe psychological trauma” (Sasson et al., 2005, p. 147) and multiple studies have confirmed a significant correlation between traumatic experiences and incidence of OCD (Cromer et al., 2007; Gomes de Araújo et al., 2018; M. L. Miller & Brock, 2017). Helzer et al. (1987) found the incidence of OCD was 10 times more likely in people with PTSD than the population at large. It is thought that the combination of post-traumatic intrusive thoughts and visualizations evokes intense anxiety which, in turn, heightens the awareness of potential threats and increases the need to avoid or otherwise compulsively ritualize a response in an attempt to reduce physiological arousal (Sasson et al., 2005). It is common for OCD to begin after a subjectively distressing experience. Relapses and escalation of symptoms can be brought on by

experiencing traumatic reminders or additional stressors (de Silva & Marks, 1999, 2001). In one sample of 265 patients diagnosed with OCD, 54% had experienced one or more traumatic life experiences (Cromer et al., 2007).

In another large sample of patients diagnosed with treatment-resistant OCD, 82% reported a history of traumatic life events (Gershuny, Baer, Parker et al., 2008). In a large clinical study of inpatients that examined the conditions of onset of OCD, over 60% had experienced extremely stressful life events in the past year such as taking an important educational or professional examination, marriage, childbirth, and divorce, serious economic and occupational problems, and other personal relationship issues (Murayama et al., 2020). Acute onset of symptoms within one month of those events had occurred for 57% suggesting that it was the shock of the experience that contributed to developing OCD (Murayama et al., 2020).

Some people experienced onset of OCD after merely upsetting incidents because they felt contaminated or dirty and became conditioned by disgust, such as “splashing toilet water while assisting a family member,” “working with infectious waste in a health center,” “classmates letting an insect run over her,” “having a disliked classmate touch his game machine,” or “lending a pencil that became contaminated with a classmate’s sweat” (Murayama et al., 2020, p. 4). Still others reported intense distress after experiencing shocking events as “triggers” and developing fear of being harmed or harming others, such as “running over a cat with his car,” or being “injured by a chisel” (p. 4). While these incidents may not qualify as “trauma” in the sense of clear diagnostic criteria, considerable subjective distress was a key risk factor for developing clinical OCD (Murayama et al., 2020).

In comorbid PTSD, OCD patterns of contamination and harm obsessions and checking, washing, and ordering compulsions are focused on the content or theme of the traumatic

experience. Severe exposures that involve exposure to blood, human tissue, dead bodies, life-threatening injuries and permanent bodily harm, sexual assault, and interpersonal violence are especially prone to contribute to a persistent feeling of contamination that elicit washing compulsions. Witnessing gore and violence likewise often leads to checking compulsions. “Rituals serve (in a pathological way) to symbolically reduce the feelings of disgust, guilt, shame, and helplessness” (Sasson et al., 2005, p. 151).

While intrusive thoughts and images may share similarities with the intrusive symptoms of PTSD, “the two should not be mistaken for the same phenomenon” because “the OC symptoms in PTSD may constitute a distinct form of symptomatology” (Sasson et al., 2005, p. 150). The content of the intrusions in both conditions are typically linked with the explicit sensory memory of the trauma, and symptoms of both disorders onset in close succession. “The co-occurrence of these disorders may not result merely from random comorbidity or overlapping symptoms. Instead, it may be that this untypical course of OCD, stemming from trauma, is actually a distinct subtype of OCD” (Sasson et al., 2005, p. 151). More research is needed to see if this complex presentation is phenotypically distinct.

In a meta-analysis of 24 studies of trauma and OCD, interpersonal trauma, including emotional abuse, sexual abuse, childhood neglect, and witnessing or experiencing violent aggression were all associated with increased severity of OCD symptoms (M. L. Miller & Brock, 2017). In another large study, increased incidence of traumatic experiences did not contribute to severity of obsessions, but was correlated with increased severity of compulsions (Gershuny, Baer, Jenike et al., 2002). The lack of specificity of types of trauma in these studies may account for the wide-ranging results.

However, subjective traumatic experiences may reflect selective attention on traumatic memories and be a risk factor for OCD among people with a propensity for obsessional thought (Selvi et al., 2012). In a study correlating dissociative experiences, cognitive appraisals/strategies for intrusive thoughts, and childhood traumatic experiences, severity of dissociation was attributed to childhood trauma and not cognitive factors. “Trauma and pathological dissociation scores were less likely to relate to OC symptoms, whereas non-pathological dissociation (absorption) appeared to be in higher relationship with OC symptoms” (Selvi et al., 2012, p. 56).

In another large study of treatment-resistant OCD patients, dissociation was found to predict poor treatment response. Consistent with Selvi et al.’s findings, “the absence of a direct relation between trauma and treatment resistance could suggest that a history of childhood trauma is associated with a general vulnerability to develop a severely psychopathology” (Semiz et al., 2014, p. 1292).

Nevertheless, high comorbidity suggests some kind of parallel process among people unfortunate enough to have both high subjective trauma and OCD and speaks to the increased vulnerability of multiple comorbidities with increased childhood trauma, especially for those experiencing high dissociation. “In spite of pathological connotation of dissociative experiences, dissociation may primarily constitute a cognitive trait which varies naturally in OCD subjects and is not necessarily associated with the experience of trauma” (Selvi et al., 2012, p. 56).

Interestingly, Murayama et al. (2020) found that severity of OCD symptoms bore no relationship to the severity of the traumatic/stressful experiences. However, the group with stressful life experiences in the previous year that are not normally considered traumatic events had more religious obsessions (12.2%) than their counterparts in the traumatic event group (10.2%). While not a purpose of Murayama et al.’s study, this could indicate that a maladaptive

coping style to a wide range of stressful life experiences may contribute to developing scrupulosity.

No studies to date have reported specific symptoms of scrupulosity related to comorbid OCD/PTSD. However, “moral injury” is a distinct type of PTSD first conceived by Jonathan Shay, MD, PhD, a VA psychiatrist working with Vietnam veterans as “a betrayal of what’s right, by someone who holds legitimate authority (e.g., in the military—a leader), in a high stakes situation” that “impairs the capacity to trust and elevate(s) despair, suicidality, and interpersonal violence” (Shay, 2014, p. 183). Later work has expanded on the themes of betrayal to reveal a precondition of an underlying moral paradox (Fleming, 2021). This causes psychological injury via self-blame with persistent intrusive thoughts of a moral dilemma—a “damned if you do, damned if you don’t” conundrum—that, though it is in the past, defies reconciliation with one’s personal values or religious belief, to a decrement of one’s core sense of self and the “Just World” belief (Fleming, 2022). There is an innate clash between “religious belief/moral teaching and military values/warrior ethos—‘You can’t love your enemies and do a good job of killing them’ (Marine)” (Fleming, 2021, p. 3020).

Moral Injury and Scrupulosity

Moral injury sometimes involves a sense of betrayal by more powerful superiors for being put in the paradoxical, irresolvable situation (as in war), and/or guilt for doing the same to one’s unit. Pervasive shame and guilt linger for what one has perpetrated (i.e., killed another human) and/or failed to do (i.e., rescue a friend or save an innocent person) that may or may not have caused direct harm, been a proximate cause of harm, failed to respond to harm, or prevent it. Survivor’s guilt goes without saying. Agency was sometimes not available, though that does not reduce the sense of responsibility. An often irrational belief that one could have done

something different is held onto, and visited as a haunting via intrusive memories and nightmares. This inability to move on keeps the moral injury always as an unacceptable present reality. It causes a profound sense of uncertainty, futility, paralysis in decision-making, and a “disabling belief that life is absurd” (Fleming, 2021, p. 3014).

Moral injury often precipitates a change of personality, and a sense of loss of one’s personal character that is irreversible (Shay, 2014). Moral injury “generate(s) an insufferable tension with values rooted in religious teaching,” as well as cultural mores of acceptable behavior. So much so that to “reduce the dissonance, religious beliefs are oftentimes modified or jettisoned altogether” (Fleming, 2021, p. 3022). At the least, religious struggle ensues with a loss of faith and hope (Koenig & Al Zaben, 2021).

The cognitive Sisyphean struggle to find resolution along with the cycle of emotional suffering from moral injury are reminiscent of scrupulosity’s persistent shaming and blaming of oneself that accompanies obsessional thoughts. If the person attempts to alleviate their distress with some intentional action, these symptoms could very well be considered an OCD-type compulsion should it begin to work. There is a high likelihood that some people with moral injury will also develop OCD of the moral/religious variety, though it remains to be explored more thoroughly in research.

Anecdotal clinical evidence is mounting that moral injury is often accompanied by obsessive–compulsive phenomena though it has yet to appear in the literature. If comorbid OCD/PTSD is found to be a distinct subtype, it is also defensible that scrupulosity and moral injury occupy much common ground. Further research is needed to specifically link moral injury to scrupulosity because there are no identified mediating factors at this time that could aid in reducing moral injury in therapy when scrupulosity co-occurs. Based on a shared theme of a

violation of one's moral code resulting in deontological guilt (Parisi et al., 2021), it seems likely that scrupulosity could result from moral injury in an unwitting attempt to avoid further perceived transgression. It seems wise to investigate this possibility in clinical practice when moral injury presents in patients even absent a research finding indicating its necessity.

Relevance of Developmental Injury: “Complex” PTSD

Childhood maltreatment in all its forms has been associated strongly with severity of OCD in adults and children. Early childhood trauma as well as other traumatic experiences in life affects severity of OCD in a dose-response relationship with cumulative effects seen even at subclinical levels of impairment (Barzilay et al., 2019; Boger et al., 2020; Carpenter & Chung, 2011; de Silva & Marks, 1999; Destrée et al., 2021; Ojserkis et al., 2017; Ou et al., 2021; Tibi et al., 2020).

Further, attachment security is impacted adversely by both singular traumatic events and the longtime, cumulative effects of developmental trauma and mediates the long-term course of OCD (Barzilay et al., 2019; Boger et al., 2020; Carpenter & Chung, 2011; de Silva & Marks, 1999; Destrée et al., 2021; Ojserkis et al., 2017; Ou et al., 2021; Tibi et al., 2020). No study to date has examined the correlation of childhood trauma or acute trauma to onset of scrupulosity, specifically.

Self-Ambivalence in OCD

Early in the development of the cognitive theory of obsessions, Rachman (1997) reported that people experiencing obsessions had high distress due to their positive view of themselves being challenged. These self beliefs are often perceived to be contradictory to their values and therefore disturbing and ego-dystonic. The specific content of the intrusive thought may reflect an aspect of the self that had been hidden from their awareness is then negatively assessed.

Unable to integrate this new version of themselves with the unacceptable “feared self,” the intrusive thought is repeatedly denied and attempts are made to be push it out of awareness only to become more intrusive and upsetting as time goes by (Melli et al., 2016).

However, not every negative intrusion results in a negative self-evaluation and goes on to become a clinical obsession (Aardema et al., 2013; Taylor, 2005b). Some underlying predisposing beliefs must differentiate those who are more vulnerable to developing an obsession (Seah et al., 2018). An “uncertain, preoccupied, and dichotomous self-concept” (p. 875) is associated with OCD symptoms (Doron, Kyrios, & Moulding, 2007). This unresolved tension between the ideal self and the feared self may be precursor or risk factor to developing intolerance of uncertainty and checking symptoms.

The theory of self-ambivalence (Guidano & Liotti, 1983) suggests that people “who experience ambivalent patterns of attachment in childhood, characterized by concurrent experiences of rejection and validation, are susceptible to developing uncertainty about their self-worth, particularly around their moral virtue and lovability” (Seah et al., 2018, p. 40).

As a result, they seek external validation to reinstate feelings of self-worth. Thus, unwanted ego-dystonic intrusions that challenge one’s self-worth are likely to cause distress, especially when they threaten the individual’s strict standards of moral perfectionism. In addition, they are more likely to respond to such intrusions in order to restore their worth, particularly through the use of compulsive actions aimed at neutralizing perceived threats. (Seah et al., 2018, pp. 40–41)

Self-ambivalence, a related construct to the feared self, partially mediated obsessive--compulsive symptom severity and attachment anxiety among 439 young adults in a non-clinical sample (Seah et al., 2018). Further, there was a reciprocal relationship between

obsessive cognitions and self-ambivalence where the latter was a stronger predictor of OC beliefs, suggesting that dysfunctional patterns of thought present as a consequence. OCD obsessions may evolve into a behavioral pattern of OCD based on fruitless attempts to resolve ambivalent self-worth and threats to self esteem (Seah et al., 2018).

Ambivalent self-worth and negative self representations, along with maladaptive coping strategies, increase one's risk for psychopathology, in general (Mikulincer & Shaver, 2016). Such OC-related beliefs have been shown to fully mediate OCD symptoms and attachment insecurity, even after controlling for depression and anxiety (Doron, Moulding, Kyrios et al., 2009). This strongly suggests a distinct cognitive component of self-concept beyond its deleterious effect on emotional stability.

Impaired Reflective Function

The foundation for an ambivalent sense of the self may be an impaired reflective function, the ability to mentalize one's thoughts as well as others' mental states. It is learned in the first several years of life when the child's caregiver spends time face-to-face, mirroring the child's emotions, communicating understanding of the child's mental state and implicitly teaching how to recognize one's own emotions (Fonagy & Target, 1997). "OCD involves the impairment of emotional awareness and perception and it may relate to social dysfunction and to impairments in the ability to shift naturally from obsessive thoughts to other thoughts in response to social situations" (J. I. Kang et al., 2012, p. 286).

Both autistic children and children with OCD have core deficits in emotional awareness, often misattributed to lack of empathy. However, "empathic concern, which addresses the capacity for warm, concerned, compassionate feelings for others, is generally preserved in OCD patients" (J. I. Kang et al., 2012, p. 290). J. I. Kang et al. found a difference between affective

empathy that is unimpaired in OCD, and impaired cognitive empathy, or perspective taking, “the cognitive capacity to see things from the point of view of others without necessarily experiencing any affective involvement” (J. I. Kang et al., 2012, p. 290).

What is often misperceived as not caring is actually a social impairment of cognition. This may be due to decreased ability to perceive facial expressions, as well as alexithymia. Further, in people with low emotional awareness, ambiguous facial expressions are often misperceived as indicating disgust rather than other negative emotions (Grisham et al., 2010; J. I. Kang et al., 2012).

This cognitive confusion is deeply distressing for people with OCD (J. I. Kang et al., 2012). In their study, “the personal distress subscale measures self-related aversive feelings in response to extreme distress in others” (J. I. Kang et al., 2012, p. 290). This finding confirms the previous research that OCD cognitions increase negative self thoughts as well as the negative affective component (Diamond & Keefe, 2024). As it pertains to scrupulosity, personal distress “was significantly associated with forbidden thoughts which involve aggressive, sexual, taboo and religious obsessions” (J. I. Kang et al., 2012, p. 291).

Impaired Mentalization and Theory of Mind

As the child develops a theory of mind, they begin to predict and understand other’s actions. Building a sense of self confidence, they will feel secure enough as a separate individual to explore the environment and return to the safe haven of the caregiver when distressed (Ainsworth, 1969, 1982; Ainsworth et al., 1971; Ainsworth et al., 2015). Mentalization helps the child differentiate “self” from “mother” during the process of individuation, which fosters a sense of self agency and enduring identity. With underdeveloped mentalization, the world is a less predictable, scarier place (Fonagy & Target, 1997). The downstream effect of this

impairment in perceiving the world is a less secure sense of who one is in it. The ability to mentalize allows a person to explain their own behavior and “create the continuity of self experience which is the underpinning of a coherent self structure” (Fonagy & Target, 1997, p. 680).

Into this normal process falls a distinctly unpleasant, though usually transient experience of estrangement when the caregiver is unavailable and the child suffers separation anxiety. (Diamond & Keefe, 2024).

Growing recognition of relationship of the self to the non-mother or other-than-mother world may precipitate increased separation anxiety...around the increased recognition not only of the infant’s physical separateness but also the dawning recognition of psychological separateness from mother. In differentiation, separation anxiety may also involve resistance against engulfment by mother, and lead to assertion of self. (Diamond & Keefe, 2024, pp. 254–255)

The “separation-individuation” stage can begin as early as four or five months and continues on until between 30 and 36 months, “a slowly unfolding intrapsychic process” (Mahler, 1972, p. 487). Separation and individuation are “intertwined developmental processes” that “may proceed divergently, as the result of a developmental lag of one or the other” (Mahler, 1972, p. 489). The child’s psychological and social development has four phases: “differentiation, practicing, rapprochement, and a fourth subphase, occurring during the third year, which, the longer we studied it, the more cautiously did we have to designate it as ‘the child on the way to object constancy’” (Mahler, 1972, p. 488).

Mahler suggests, in psychoanalytic terminology, separation anxiety is a normal reaction to a failure of the attachment figure to effectively mirror the child’s affective states. The

developmental task of the rapprochement phase is to convey in language how to understand and cope with the hurt and rage of separation, sometimes initiated by the mother and also by the child wherein they exercise their budding autonomy, and then return to the attachment figure for solace and comfort (Mahler, 1972). Failure to develop a pattern of using language to facilitate connection, and mentalize emotions and the mother's mental state, leads to a delay in developmentally appropriate theory of mind (Diamond & Keefe, 2024).

Separation Anxiety Disorder (SAD) is found in studies of children, adolescents, and adults to be clinically significant in studies of OCD (Bergman et al., 2015; Bögels et al., 2013; Bucci et al., 2012; Diamond & Keefe, 2024). Adult SAD has a lifetime prevalence of 6.6% (Bucci et al., 2012; Franz et al., 2015). However, among 260 adults with comorbid OCD and SAD, 4.4% currently met clinical criteria for both disorders with a lifetime prevalence of 27.2% (Franz et al., 2015, p. 145). Another study found 35% of adolescents in a community sample met clinical criteria for the disorder (Salum et al., 2011).

In a comparison of the clinical features of OCD/SAD, the taboo thoughts content domain had significantly more aggressive and sexual/religious obsessions than the OCD group (Franz et al., 2015). Other content domains were not statistically significant between OCD and OCD/SAD. This suggests scrupulosity is a clinically significant feature of comorbid OCD/SAD. Further research is indicated as the authors noted that in comparing their symptoms, "OCD and SAD are so closely associated that deserves further investigation with appropriate methodology and sample size" (Franz et al., 2015, p. 148).

Patients with ASAD showed higher frequency of alexithymia and higher scores on the "difficulty identifying feelings"; worse social functioning; greater behavioral inhibition during childhood; worse reaction to loss events; higher scores on insecure attachment

styles. Independent predictors of the intensity of ASAD symptoms were an “anxious-ambivalent” attachment style, lifetime symptoms of panic disorder, difficulties in identifying feelings and behavioral inhibition during childhood. (Bucci et al., 2012, p. 1)

Further, impaired reflective function is often accompanied by insecure attachment, which corresponds to increased emotional lability and decreased ability to self-soothe one’s troubling emotions. The inability to resolve inner conflict and calm down may exacerbate anxious rumination and tip the person toward obsessive–compulsive behaviors. This is a fertile area for more research because “the mentalization deficits of patients with OCD may have been underestimated or poorly understood” (Kullgard et al., 2013, p. 155). It is not known if or how scrupulosity differs from OCD in the ability to mentalize or properly act on a coherent theory of mind, but for both disorders it has been shown to affect one’s core sense of stability of identity that depends on those abilities (Fonagy et al., 2018; McLaren & Sharp, 2020).

Reflective function is the developmental acquisition that permits the child to respond not only to other people’s behavior, but to his *conception* of their beliefs, feelings, hopes, pretense, plans, and so on. Reflective function or mentalization enables children to “read” people’s minds. (Fonagy & Target, 1997, p. 679)

As part of the process of developing secure attachment to primary caregivers, the child begins to define themselves as different from the caregiver when they have different emotions, thoughts, and actions (Ainsworth et al., 2015). This first becomes apparent around eight months old when, after the cognitive development of object permanence, separation anxiety begins. “When the mother leaves, she is not forgotten. The child has some internalized representation of her that persists. Even though his needs may be gratified while she is absent, he misses her and is

distressed” (Ainsworth, 1969, p. 976). By 18 months old, the child has rudimentary skills in understanding others’ thoughts and feelings, and by age four to five has developed the ability to understand what someone else does or does not know based on what the other person has experienced, instead of relying on their own point of view.

Reflective function goes hand in hand with the ability to think about one’s own thought process, known as metacognition (Flavell, 1979). Metacognition refers to “both people’s awareness and control, not only of their cognitive processes, but of their emotions and motivations as well” (Papleontiou-louca, 2003, p. 1). These two often contradictory perspectives of oneself’s and others’ states of mind are very important to social development as it confers the ability to understand and predict from experience someone else’s thought process (Premack & Woodruff, 1978). The cues are subtle—direction of gaze, facial expressions, tone of voice, body postures, choice of words—all within a complex system of social communication. These neurodevelopmentally based abilities are evolutionarily advantageous for promoting cooperation and survival. And it further requires an ability to make sense of varying contextual information and synthesize complex social perceptions to arrive at the correct conclusion (Baron-Cohen, 1995).

An individual has a theory of mind if he imputes mental states to himself and others. A system of inferences of this kind is properly viewed as a theory because such states are not directly observable, and the system can be used to make predictions about the behavior of others. As to the mental states the chimpanzee may infer, consider those inferred by our own species, for example, purpose or intention, as well as knowledge, belief, thinking, doubt, guessing, pretending, liking, and so forth. (Premack & Woodruff, 1978, p. 515)

Premack and Woodruff (1978) referred to this ability to “mentalize” the cognitive and affective states of others as a play on words for the mentalists of the 19th century who were reputed to be mindreaders as they hoodwinked audiences into believing in their “special powers.” Their experiment demonstrated that chimpanzees indeed could infer mental states by choosing the correct tool to use to assist a human in achieving a task. By perceiving the researcher’s intentionality, the chimp had to infer what it was the researcher desired (Premack & Woodruff, 1978).

Critics complained that logically this was impossible to infer causality. However, the authors’ rebuttal admits that while inferential reasoning cannot presume causality, both primates and humans do it freely, intuitively, and usually quite quickly and accurately. They confer this reasoning ability to the innate intelligence of the primate brain. The authors remark that children are also able to make meaningful inferences of others’ intentions, and often infer fantastical causes, and make other cognitive errors at young ages with thought processes influenced by a rich inner fantasy life while learning about the world by playing (Mahler, 1963; Premack & Woodruff, 1978).

At an early age, children attribute purpose to inanimate objects, say, to a leaf blown by the wind. Indeed, if the leaf moved in such a way that it struck the eye of someone who happened to be a villain, the child would be almost certain to attribute intention to the leaf. (Premack & Woodruff, 1978, p. 616)

The ability to perceive life from another’s point of view and perceive another’s thoughts, beliefs, emotions, and intentions is so fundamental to our neurology that Baron-Cohen (1995) remarks that like every other human ability, it exists on a spectrum of varying degrees of function. When the skill is noticeably lacking, Baron-Cohen (1995) calls it “mindblindness,” and

posits that it is a primary neurological impairment with consequences of social impairment in autism. Other related impairments within the autism spectrum include lack of symbolic play, repetitive stereotypical movements and “rituals,” a preference for social isolation over engagement, and communication deficits (Baron-Cohen, 1989, 1995).

When mentalization is impaired, it is difficult to communicate one’s inner experience. Social communication deficits thus make it even more difficult to determine the extent of someone’s theory of mind without some objective data due to the intrinsically private nature of thought being not very observable (Kullgard et al., 2013). It is likely that with the large number of people with comorbid ASD and OCD, and even more with subclinical OCS, that there is a shared mechanism for mindblindness, a kind of theory of mind disability. Some studies have shown a decreased ability to decode facial expressions in both ASD (Baron-Cohen et al., 2001) and OCD (J. I. Kang et al., 2012). Future research is needed to determine both if there are commonly shared neural networks of impairment and genetic concordance.

Internal Working Models

Sensitive domains of one’s self concept are highly relevant to development of OCD and particularly scrupulosity. Scrupulosity often centers on moral concerns with direct bearing on one’s self esteem (Salkovskis et al., 1999). Early experiences are theorized to lead to stable belief systems about the world at large, oneself and others relating to expectations of one’s competency to handle unknown, potentially threatening situations. Internal working models (IWMs) are cognitive patterns theorized to encompass a set of “conscious or tacit expectations and attitudes” (Doron & Kyrios, 2005) that “further contribute to the individual’s perception of human nature and the world as being more or less trustworthy and controllable” (Doron & Kyrios, 2005, p. 418). IWMs are accessible through “a form of implicit memory” (Hall & Fujikawa, 2013, p.

280). They have variously been referred to as IWMs, interpersonal schemas, object relations, and attachment styles in various schools of psychology, but all relate to a stable, enduring pattern of interactions and emotional responses to others.

“Experiences of rejection, emotional unavailability, and lack of support will lead to the construction of an unlovable, unworthy, and incompetent self model” (Doron & Kyrios, 2005, p. 418). These beliefs coalesce into an IWM of oneself based on that defective and rejected mental representation of the self, with a concomitant and reoccurring range of emotional responses and reactive behaviors whenever a threat to one’s shaky self esteem occurs.

Within religious communities or individuals, secure attachment to God helps create a positive IWM through the correspondence hypothesis that one’s secure attachment to warm, supportive and available caregivers creates an expectation of the same of God (Granqvist et al., 2007). “Most evidence indicates that IWMs of interpersonal representations and of attachment to God representations correspond....by demonstrating moderate associations” (Cassibba et al., 2008, p. 265). However, few studies have been done. “A developmental attachment perspective approach, focusing on implicit working models, has hardly been used in the attachment to God research” (Stulp et al., 2020, p. 265).

Self Schemas and Early Maladaptive Schemas

According to schema theory, schemas are cognitive structures of related ideas, experiences, and beliefs that form core frameworks for understanding oneself, others, and the world (Young et al., 2007). “Within cognitive development, a schema is a pattern imposed on reality or experience to help individuals explain it, to mediate perception and to guide their responses” (Young et al., 2007, p. 6). A. T. Beck (1974) theorized that negative experiences in childhood consolidate into a fixed, stable constellation of core beliefs, a cognitive “schema” that

affects emotion and behavior. These negatively valenced memories, emotions, bodily sensations and cognitions about oneself and others collected together in aEarly Maladaptive Schemas (EMS), a stable set of expectations (Atalay et al., 2008; Young et al., 2007). Schema modes are the emotional states and coping responses arising when EMSs are activated (Remmerswaal et al., 2023, p. 175).

Schemas can be both positive and adaptive and negative and maladaptive, as well as develop early or later in life. Negative schemas developed early are fundamentally maladaptive and lead to dysfunctional cognition (Thiel et al., 2014, p. 362). Later schema theory built upon Erikson's (1950) psychosocial stages and elaborated that "the successful resolution of each stage results in an adaptive schema, whereas the failure to resolve a stage results leads to a maladaptive schema" (Young et al., 2007, p. 9). Young et al. theorized that schemas are developed when core emotional needs go unmet in childhood.

We have postulated five core emotional needs of human beings:

1. Secure attachment to others (includes safety, stability, nurturance and acceptance)
2. Autonomy, competence, and sense of identity
3. Freedom to express valid needs and emotions
4. Spontaneity and play
5. Realistic limits and self-control. (Young et al., 2007, p. 10)

Early Maladaptive Schemas (EMS) are a subset of cognitive schemas theorized to underlie a broad range of psychological problems including personality disorders and chronic mental illness and result in the stable, fixed patterns of behavior typical of each disorder. EMS develop in response to adverse childhood experiences and insufficient nurturing by caregivers.

As young children, these patients were abandoned, abused, neglected or rejected. In adulthood their schemas are triggered by life events that they perceive (unconsciously) as similar to the traumatic experiences of their childhood ... (and) they experience strong negative emotion such as grief, shame, fear or rage. (Young et al, 2007, p. 8)

An EMS is a “broad, pervasive theme or pattern comprised of memories, emotions, cognitions, and bodily sensations regarding oneself and one’s relationship with others developed during childhood or adolescence, elaborated throughout one’s lifetime, and dysfunctional to a significant degree” (Young et al., 2007, p. 7). EMS are self-defeating belief systems that are a principle cause of maladaptive behaviors responsible for insufficient coping mechanisms. Young theorized there are five schema domains: disconnection, impaired autonomy, impaired limits, other-directedness, and overvigilance and inhibition (Thiel et al., 2014, p. 2). Each of the EMS has a different origin and long-term impact and can be lumped into “five umbrella categories...bringing together the EMSs that tend to develop together” (Shariatzadeh et al., 2015, p. 172).

Early Maladaptive Schemas

Within these domains are 18 EMS, any of which can be activated at the same time, including “emotional deprivation, abandonment/instability, mistrust/abuse, defectiveness/shame, social isolation/alienation, dependence/incompetence, vulnerability to harm, failure, entitlement/grandiosity, insufficient self-control/self-discipline, subjugation, self-sacrifice, emotional inhibition, unrelenting standards/hypercriticalness, and entanglement” (Mikaeili et al., 2019, p. 68).

Every domain represents one important part of the core needs of the child. Childhood neglect, adversities, maltreatment and abuse produce, for example, EMSs like

Abandonment/Instability (AB), Mistrust/Abuse (MA) or Emotional Deprivation (ED) which belong to the Disconnection and Rejection schema domain. ... Four domains of beliefs are hypothesized to comprise vulnerability in OCD: Perceived Vulnerability; View of/Response to Unpredictability, Newness, and Change; View of Strong Affect; and Need for Control. (Shariatzadeh et al., 2015, p. 172)

“Schema modes are the emotional states and coping responses arising when EMSs are activated” (Remmerswaal et al., 2023, p. 175). Young et al. (2007) hypothesized core EMS can be activated differentially among different disorders. While schemas and modes are helpful in conceptualization of the etiology of specific symptoms and disorders, they are not yet well validated in research and established as unique descriptors of mental disorders (Voderholzer et al., 2014; Young et al., 2007).

At this point, we do not know whether schemas or symptoms come first in psychological development. Alternatively, maladaptive schemas may well be an epiphenomenon of a specific disorder. It is also important to note that maladaptive schemas may be typical but probably not specific to different mental disorders. (Voderholzer et al., 2014, p. 30)

In people with OCD, the cognitive theory attributes OCD symptoms to judging intrusive thoughts as more self-relevant and important than other thoughts based on overestimation of danger or threat in ambiguous conditions, and as a consequence, feelings of over-responsibility (Mikaeili et al., 2019). In this study, Mikaeili et al. (2019) further concluded that patients with OCD had significantly more perseverative thoughts, dissociative somatoform symptoms, and memory dysfunction leading to lack of confidence in memory retrieval than controls. Each of these can cause a tendency toward repetition of compulsive behaviors (Mikaeili et al., 2019, p. 66). Schema theory adds to this conceptualization by stipulating that these cognitive

misappraisals are based upon previous experience and reinforce the faulty cognition with a familiar emotional response (Mikaeili et al., 2019). However, more childhood trauma does not necessarily correlate to more EMS and activated modes (Voderholzer et al., 2014).

Studies comparing various psychological disorders and their correlated EMS have found elevated EMS in OCD with “differences between individuals with obsessive-compulsive disorder and healthy control in schemas of emotional deprivation, mistrust, social isolation, failure to achieve, dependence, vulnerability to harm, subjugation, emotional inhibition, and unrelenting standards were statistically significant” (Shariatzadeh et al., 2015, p. 171).

In the OCD and OCPD patients, all maladaptive schemas except Self-sacrifice, and insufficient self-control indicated higher scores. The effect size in this study shows that in both disorders schemas and schemas of vulnerability to harm and illness to have the greatest impact. (Shariatzadeh et al., 2015, p. 171)

EMS in OCD. Specific EMS that have been found most prevalent in OCD across multiple studies include social isolation/alienation, defectiveness/shame, failure, vulnerability, and pessimism (Atalay et al., 2008; J. E. Kim et al., 2014; Mikaeili et al., 2019). A recent meta-analysis of 22 studies of EMS in OCD concluded that the most prominent EMS share a theme of “representing disproportionate expectations of negative events and a perceived inability to cope” (Dostal & Pilkington, 2023, p. 47). Previous research establishing that exaggerated estimation of threat is a key driver of OCD is consistent with these EMS’ impact on cognitive processes.

The three EMSs with the strongest associations suggest that individuals with OCD are more likely to feel incapable of coping independently (dependence/incompetence), to worry about experiencing harm or adverse events (vulnerability to harm or illness), and to

expect that things will go wrong (negativity/pessimism). (Dostal & Pilkington, 2023, p. 47)

Another prominent EMS, defectiveness/shame, “involves the feeling that one is defective, bad, unwanted, inferior, or invalid in important ways and may include hypersensitivity to criticism and rejection or a sense of shame regarding perceived flaws” (Kwak & Lee, 2015, p. 760). OC symptoms may reinforce this schema and be inferred onto interpersonal relationships and social situations. This could reinforce the prevalence of the social isolation/alienation schema because both fit within the disconnection and rejection domain. OCD patients may perceive less emotional warmth and feel rejected by their parents and come to expect less fulfilling social relationships. This likely contributes to increased chronicity and severity of OC symptoms (Kwak & Lee, 2015).

Compared to eating disordered and chronic pain patients, OCD patients scored significantly higher on two EMS belonging to the “autonomy and performance” domain: “dependence” and “vulnerability”. These EMS connote the belief in basic incompetence in every day life and personal safety. “High scores on these EMS might pave the way for the development of cognitive patterns typically found in OCD, for instance, an exaggerated sense of responsibility for harmful events” (Voderholzer et al., 2014, p. 29). OCD patients also showed higher levels of “abandonment” and “insufficient self-control.”

The EMS “insufficient self-control” belongs to the domain “overvigilance and inhibition.” With regard to this EMS, the basic feeling of not being in control might be overcompensated by the development of OCD symptoms like excessive checking. It is therefore plausible that the EMS insufficient self-control is associated with OCD. (Voderholzer et al., 2014, p. 29)

Specific modes prevalent in these schemas include the “vulnerable child”, “angry child,” “punishing parent,” and “demanding parent” (Voderholzer et al., 2014).

Schema modes are more difficult to interpret since they are supposed to be less stable and therefore reflect more a current state than a trait. Nevertheless, these maladaptive child and parent modes match with the EMS on which OCD patients had higher scores. Our findings suggest that the activation of maladaptive child and parent modes is particularly pronounced in OCD, which should be considered in therapy planning. (Voderholzer et al., 2014, p. 29)

In the only study to date specifically analyzing symptom dimensions of OCD and their correlation to EMS, Kim et al. (2014a) found that the “forbidden thoughts” domain of sexual/religious/moral content was differently associated to EMS from the other OCD dimensions.

Among the five OCD symptom dimensions, the sexual/religious dimension was only significantly correlated with two schemas of vulnerability to harm or illness and enmeshment/undeveloped self. These two schemas were significant predictors of the sexual/religious dimension, accounting for 33% of the total variance in this dimension. (Kim et al., 2014, p. 134)

The “impaired autonomy and performance” schema domain includes vulnerability to harm, illness and relational enmeshment according to Young, which has its origins in the earliest attachment experiences (Kim et al., 2014).

Autonomy and independent performance needs of patients with schemas in this domain have not been satisfied. The caregivers of this group have usually harmed their children’s self-confidence, which has later led them to lack proper skills to solve problems and

manage themselves in adulthood. This view is indicative of the type of child rearing and strict environment patients with scrupulosity experienced as children.

(Soltanmohammadlou et al., 2021, p. 7)

The link is established here between insecure attachment and maladaptive self schemas that is commonly present with scrupulosity. The vulnerability of decreased personal autonomy next carries over into confidence in the ability to manage one's thoughts (Soltanmohammadlou et al., 2021).

It seems that due to their high levels of incompetence/dependence schema, individuals with a high score in scrupulosity feel less capable in the face of interfering thoughts and, as a way of escaping anxiety-provoking thoughts of indecision, seek solace in asking clergymen and authorities for reassurance. On the other hand, individuals with a high score in scrupulosity have a failure schema which makes them underestimate themselves in confronting obsessive thoughts and behaviors and lose hope for success.

(Soltanmohammadlou et al., 2021, p. 8)

Repeated failure to block out intrusive obsessional thoughts then activates the defectiveness/shame, vulnerability and failure schemas, which result in activation of the abandonment schema (Soltanmohammadlou et al., 2021).

Individuals with a high score in scrupulosity consider every interfering thought as important and a telltale sign of a sin, making them more sensitive to those interfering thoughts. From a schema point of view, intrusive thoughts with a religious theme lead to the activation of the patients' vulnerability schema. This activation may cause the patients to think that they deserve to be punished by God because of having committed a

sin and that something bad will happen to them in the future as a form of punishment.

(Soltanmohammadlou et al., 2021, p. 8)

Early Maladaptive Schemas in Scrupulosity

In a large study comparing an inpatient population with both high- and low-scores on symptoms of scrupulosity versus religious people with no disorder, “Individuals with high scores in scrupulosity were significantly different from normal religious people in the “disconnection and rejection” and “impaired autonomy and performance” schema domains”

(Soltanmohammadlou et al., 2021, p. 1). Compared to religious people without OCD, people high in scrupulosity scored higher in almost all other schema modes.

However, within scrupulosity, people with high scores and low scores showed no significant difference in any of the schema domains. Within the schema modes, only the “punitive and demanding parent modes” of high scrupulosity individuals was significantly different from that of low scrupulosity individuals (Soltanmohammadlou et al., 2021). Young’s theory is relevant to patients with schemas within the disconnection/rejection domain of abandonment, defectiveness and shame, and mistrust/abuse in that they may be unable to form relationships with secure attachments.

It seems that when individuals with a high score in scrupulosity have unwanted normal intrusive thoughts, they consider them as inner deficits and as major flaws. This leads to the activation of their defectiveness/shame schema, which gives rise to an inner sense of being incomplete and flawed in the face of God’s orders. On the other hand, their abandonment schema leads to the fear of being abandoned by God as a source of attachment, which leads to obsessive behaviors. (Soltanmohammadlou et al., 2021, p. 7)

Across each of the studies of OCD and EMS, “OCD patients scored higher in the “disconnection and rejection” schema domain compared to the other groups” (Soltanmohammadlou et al., 2021, p. 7). These specific differences have great potential for addressing treatment-resistant OCD as well as scrupulosity with schema therapy, “one of the most common treatments for treatment-resistant disorders” (Soltanmohammadlou et al., 2021, p. 1). “Haaland et al. examined EMS as predictors of treatment outcome. They found that OCD patients with high scores on the “abandonment” schema benefit less from a standard cognitive-behavioral therapy” (Voderholzer et al., 2014, p. 29).

It is believed that dysfunctional personality traits account for treatment resistance in patients with anxiety disorders and OCD. More specifically, early maladaptive schemas (EMSs) and schema modes would result in persistence of symptoms. (Remmerswaal et al., 2023, p. 175)

Schema Therapy. For OCD patients who do not respond well to CBT, “schema therapy can yield good results” (Voderholzer et al., 2014, p. 29). First recommended by Sookman et al. (1994) for patients resistant to CBT and ERP, schema therapy targets OCD cognitions and core beliefs such as inflated responsibility, perfectionism, and overimportance of thoughts (Sookman & Pinard, 1999).

OCPD may be a disorder that would benefit greatly from applying schema theory considering that it has been found effective for treating a variety of personality disorders.

Given the effectiveness of ST for personality disorders, ST is also offered to patients with chronic psychological disorders with an unsatisfactory response to CBT. These patients might respond (better) to ST because it addresses maladaptive schemas that are thought to maintain their disorder. (Peeters et al., 2022, p. 580)

Research shows OCPD subjects “obtained higher scores than the obsessive compulsive disorder group in 13 schemes (sic).” The OCPD group also had higher total scores of schemas than the healthy control group (Shariatzadeh et al., 2015, p. 171).

Development of Schema Therapy

Sookman and Pinard (1999) proposed “integrative cognitive therapy for obsessive--compulsive disorder (OCD), which focuses on schemas” (p. 351) to be an effective combination of more traditional CBT that addresses schemas thought to be relevant to OCD including vulnerability; response to unpredictability, newness, and change; and view of response to strong affect. Proposed before schema therapy, integrative cognitive therapy for CBT synthesizes developmental theory, the role of attachment experiences, the notion of schemas, an emotional-interpersonal foci, and the structural dimension in the conceptualization and treatment of each case (Sookman & Pinard, 1999). Treatment efficacy indicates a breakthrough unseen before in such difficult-to-treat cases (Peeters et al., 2022). “On average, symptoms improved from a moderately severe to subclinical level. In some cases the strength of dysfunctional beliefs across multiple domains was reduced to the normal range” (Sookman & Pinard, 1999, p. 351).

Clinical results for schema therapy (ST) have been consistently shown in multiple systematic reviews of mainly small subject sizes and naturalistic to be effective anxiety, OCD, and PTSD for over three decades, though it is not as widely known or used as CBT (Peeters et al., 2022). In the last decade, “interest in ST has taken a flight” (p. 581).

“Schema therapy is a promising treatment for anxiety, OCD, and PTSD. Yet, there is a systematic problem in the quality of research despite growing clinical interest and application” (Peeters et al., 2022, p. 579). Though early results suggest it may prove effective, “Our review identified mostly small naturalistic studies, which provided preliminary evidence, or “proof-of-

concept', of the potential of ST for anxiety, OCD, and PTSD. To make more conclusive statements, well-controlled and well-powered studies are required as a next step" (Peeters et al., 2022, p. 591).

"Preliminary evidence exists for the effectiveness of ST in mental disorders such as anxiety disorders, OCD, PTSD, chronic depression and eating disorders" (Remmerswaal et al., 2023, p. 175). It has also shown efficacy for highly complex OCD cases with many psychiatric co-morbidities (Remmerswaal et al., 2023, p. 178). "In ST, patients learn to manage these modes by addressing the dysfunctional modes and strengthening the "healthy adult" mode through experiential techniques such as imagery rescripting and chair work" (Peeters et al., 2022, p. 580).

Further OCD-specific research on the efficacy of ST and its derivatives comparing it to ERP is needed before it could be considered a new gold standard. However, it is a hopeful addition to available evidence-based therapy that another approach can be adjunctive for treatment-refractory patients who have failed ERP or never gave it a chance.

Future research on ST should focus on specific schemas, schema domains, and schema modes that routinely show up in patients with OCD as differentiated from other psychological disorders to more firmly establish a set of core EMS for OCD. When that has been established, further research on scrupulosity is needed to differentiate it from schemas correlated with OCD as a whole. It is likely that there are consistent patterns present within the abandonment/instability and defectiveness/shame domains, as well as the themes of autonomy and self-control as in OCD. But which EMS adhere particularly to scrupulosity is unknown and remains a potential fertile area for enhancing treatment outcome. In the meantime, ST could be explored in therapy with patients with OCD and scrupulosity to gain awareness of schemas

affecting such individuals with a customized, personal approach that has been shown to improve outcomes in individual psychotherapy for a variety of presenting issues.

CHAPTER VI: INTERPERSONAL AND SOCIOCULTURAL FACTORS AFFECTING OCD AND SCRUPULOSITY

Sociocultural Influences on Development of OCD and Scrupulosity

From the early days of psychology, the inordinate influence of one's cultural and social milieu on psychological development has been noted (Baldwin, 1897). Along the way, social psychology and clinical psychology seem to have parted company, perhaps in disagreement of which should be preeminently acknowledged as central to the study of humanity. Social psychology itself has been critiqued as culture-bound to Western ways of conceptualizing psychology, in general, and psychopathology, in particular, that "results in a largely ethnocentric psychology predicated on culturally specific ways of viewing individuals" (Lewis-Fernandez & Kleinman, 1994, p. 1). These biases are baked into the study of psychology in a profoundly distorting manner. "Three culture-bound assumptions bias professional concepts of mental health and illness in North America: (a) the egocentricity of the self, (b) mind-body dualism, and (c) culture as an arbitrary superimposition on a knowable biological reality" (Lewis-Fernandez & Kleinman, 1994, p. 1).

In the study of OCD, little focus has been made on sociocultural factors that influence development of the disease, and none on scrupulosity in particular. Rather, inference of such factors can be made through comparison of the results of studies of OCD from different cultures and the marked variation in prevalence of scrupulosity across cultures, as noted in Chapter IV.

A further critique of such a fundamental culture-bound distortion on the study of scrupulosity is limited by the dearth of research on the nexus of sociocultural factors and OCD. However, there are relevant areas of psychological research to draw upon that speak to its pervasive influence. These factors derive from social influence such as interpersonal

relationships and social learning processes that result in deficits in social communication, social cognition, and over-sensitivity to social judgments (Davani et al., 2022; Grisham et al., 2010; Sahakian, 1969). Further, there seems to be an intergenerational transmission of implicit knowledge that manifests in OCD behaviors in families beyond what can be attributed to genetics alone. This transmission is often of a non-verbal sense of knowing, or rather, not knowing, that is embodied through insufficient emotional self-regulation and thus modelled for subsequent generations who go on to develop their own emotional insecurities.

Relevance of Attachment Theory

Attachment theory (Ainsworth, 1969, 1982; Ainsworth et al., 1971; Ainsworth et al., 2015; Bowlby, 1969, 1973, 1980) provides a relational context for early human social and emotional development. Attachment theory has been explicated in great detail over the past century beginning with psychoanalytic descriptions of parent-child bonding and maladaptive interactions such as Freud's patient Little Hans (Freud, 1977). While Freud explained the boy's ambivalence towards his father as an example of a universal Oedipal wish of the child to take his father's place, later theorists approached early attachment first from a normative view on child development (Ainsworth, 1969; Ainsworth et al., 1971; Ainsworth et al., 2015; Bowlby, 1969, 1973, 1980).

From birth, human infants require a great deal of hands-on caregiving, both physical and emotional, and without which, normal psychosocial development cannot be achieved. Attachment theory explains the "universal emotional bond, first arising between infant and primary caregiver, which involves the seeking out of a specific attachment figure in times of stress, and the use of this figure as a secure base in the exploration of the world" (Myhr et al., 2004, p. 447).

Secure attachment creates a healthy blueprint of both cognitive and emotional expectations for oneself and other people appropriate to their needs at the time and the proximity of social bonds to various available people (Ainsworth et al., 1971). A child will approach a caregiver before a stranger, and typically a female stranger before a male based on an internalized template of who they have experienced as the type most likely to help them. The child learns to believe that caregivers will be available and responsive to their bids for attention. The child also learns from the attentive, caring interactions to ask for and receive soothing for life's troubles and from having learned to calm down from being cared for, an ability to tolerate some distress, modulate disturbing affect and eventually, to self-soothe their own distress (Ainsworth et al., 1971).

A secure relationship with attachment figures teaches the child to develop further such relationships throughout life, “demonstrating comfort with intimacy, the ability to depend on someone and to be depended on, and the confident use of the attachment relationship to explore the world, without fear of abandonment” (Myhr et al., 2004, p. 447). “Early attachment relationships lay the ground work for adult attachment relationships, with numerous studies demonstrating that attachment behaviour demonstrates relative stability over the life span, affecting adult romantic, social and parenting behaviour” (Myhr et al., 2004, p. 447).

A secure attachment style is characterized by as low attachment anxiety and low attachment avoidance. In adulthood, secure attachment lays a foundation for a healthy emotional regulation system that may prevent escalation of normal intrusive thoughts into obsessions (Doron & Kyrios, 2005; Pozza et al., 2021). Further, it may act as “a protection factor from emotion dysregulation and consequent psychopathological disorders” (Pozza et al., 2021, p. 15).

It is against this backdrop of normal human development that OCD presents such a challenge to explain. While research has confirmed a strong genetic link to obsessive-compulsive spectrum disorders in families, and there is also an innate individual temperamental and personality influence, OCD is rarely seen in people with secure attachment styles. Insecure attachment has been shown to lay a foundation of insufficient self-soothing strategies that lay the foundation for the maladaptive strategy of OCD (Doron & Kyrios, 2005; Mikulincer et al., 2003). In recent decades, research has also shown a clear link between insecure attachment and manifesting OC behaviors and obsessional cognitive patterns beginning in childhood and continuing on throughout the adolescent and adult stages of life (Pozza et al., 2021). Insecure attachment presents a strong trans-diagnostic risk factor for developing not only OCD, but depression in adolescence and adulthood (Irons et al., 2006; Ivarsson et al., 2016), as well as the spectrum of psychotic disorders (Ein-Dor et al., 2016).

Attachment influences development of self-other internal schemas which have been shown to affect severity of OCD symptoms (Doron, Moulding, Kyrios et al., 2009; Doron, Moulding, Nedeljkovic et al., 2012; Fergus & Rowatt, 2014a). Adult attachment styles and self representations have been linked with dysfunctional cognitive processes similar to the cognitive distortions seen in OCD (Doron et al., 2008, p. 875).

Recent research on attachment styles and early maladaptive self-schemas of both adults (J. E. Kim et al., 2014; Shariatzadeh et al., 2015), and children (Rezvan et al., 2012) have correlated relational attachment to severity of OCD symptoms. “It is believed that dysfunctional personality traits account for treatment resistance in patients with anxiety disorders and OCD. More specifically, early maladaptive schemas (EMSs) and schema modes would result in persistence of symptoms” (Remmerswaal et al., 2023, p. 175).

An anxious adult attachment style significantly predicts OC phenomenon (Doron, Moulding, et al., 2012). It is thought that OCD-related thoughts and attachment-related expectations of oneself and others significantly influence development of OCD through the maladaptive self schemas. Some domains of thought content are more personally salient and disturbing than others and hold more influence over the person's self worth. An individual's self concept is also context-sensitive to different domains of competence that are valued more or less highly. Hence, those sensitive individuals may be more fragile in holding a cohesive sense of self and more reactive to intrusive thoughts that challenge it (Doron, Moulding, Kyrios et al., 2009).

Historically, people with scrupulosity were noted to have a "tender conscience" (Ciarrocchi, 1995). Rachman (1971) and Salkovskis (1985) suggested early in their line of research that threats to oneself's moral beliefs are particularly salient for OCD. Individuals with OCD were more likely than anxious controls to draw negative conclusions about themselves (Ferrier & Brewin, 2005). For people with scrupulosity, it seems obvious that such abhorrent thoughts would impact one's self-concept and reduce self esteem, though this hypothesis has not been tested as it has been confirmed for sexual obsessions, a content domain commonly occurring with scrupulosity that also pertains to "unacceptable/repugnant thoughts" (Fernandez et al., 2021, p. 1).

Adult attachment styles have been correlated with maladaptive and negative cognitive schemas similar to those found in the cognitive theory of OCD. "Anxiety regarding abandonment in close relationships (attachment-anxiety) reflects the degree of internalized sense of self-worth" (Doron, Moulding, Kyrios, et al., 2009, p. 875). Anxious attachment has been found to be reactive to increased perception of threats to those salient domains of self worth, as well as the extent of perfectionism. Threat perception becomes heightened and increases one's feelings of

low self-efficacy. This leads to rumination on those devaluing thoughts and increased attempts at avoiding or suppressing them.

Ruminating thoughts are often related to those sensitive domains such as morality and achievement, as well as social acceptability (Doron & Kyrios, 2005; Doron et al., 2008). Self belief domains are considered “sensitive” if the individual values them highly but feels little competence or self-efficacy. This sensitivity interacts with an underlying belief, such as over-responsibility for preventing harm, which triggers intense anxiety and leads to neutralizing thoughts and behaviors (Doron & Kyrios, 2005). If the person holds a “just world” belief that “good things happen to good people,” such that they have to be deserving of a positive outcome, they are more likely to enact compulsions (Doron et al., 2008).

The responsibility for preventing harm belief is predicated on a learning that one is responsible for the outcome of events regardless of one’s influence or control. Such an experience can occur early in life when being held responsible for developmentally inappropriate tasks, or blamed for negative outcomes for which they may have had proximity, some influence, but little or no control (Salkovskis et al., 1999). “Some children or adolescents may be obliged to assume actual responsibilities at an unusually early age as a consequence of incompetent parenting, leading the child to take responsibility for the welfare of siblings or even the parents themselves” (Salkovskis et al., 1999, p. 1060). This could lead to feelings of low competence and self-worth for which the child learns to equate proximity to or some influence on events with actual responsibility.

When a child is blamed or scapegoated for negative occurrences that they cannot control and a parent says something like, “Look what you made me do,” or, outright emotional abuse with statements such as, “You never do anything right,” they learn to internalize self-blame and a

sense of “failure, disappointment, and guilt” (Salkovskis et al., 1999, p. 1060). Those feelings can trigger the underlying self-belief of being capable of causing negative events to occur, but not having the power to enact positive ones. Hence, when a negative event is threatened or seems very likely, they may respond with intense feelings of over-responsibility to prevent something bad happening because they do not believe they are powerful enough to do anything to prevent it (Salkovskis et al., 1999).

This would lead quite naturally to hyper-arousal and developing an overly sensitive threat detection cognitive process for those areas of sensitive self-beliefs. Berman et al. (2019) found that the perceived intensity of threat associated with their most disturbing obsessions mediated the relationship between OCD beliefs and the severity of OCD symptoms.

Insecure Attachment Styles

The intrapersonal development of a maladaptive self-schema early in life leads to development of insecure adult attachment styles (Doron, Kyrios, & Moulding, 2007; Doron, Moulding, Kyrios et al., 2009). An insecure attachment style may be a developmental mechanism linking childhood maltreatment and severity of OCD symptoms (Boger et al., 2020; Carpenter & Chung, 2011). “Secure attachment behaviour in children has been empirically linked with sensitive, responsive caregiving, while insecure attachment behaviour has been linked with inconsistent, neglectful, intrusive or frightening caregiving” (Myhr et al., 2004, p. 447).

The impact of developmental trauma and traumatic events may increase the likelihood of developing OCD as a coping method for traumatic sequelae such as intrusive thoughts (Barzilay et al., 2019; Gomes de Araújo et al., 2018).

Anxious Attachment

Insecure attachment is comprised of two different strategies for working through attachment ambivalence, an anxious and an avoidant attachment style. In a population-based study, avoidant attachment was found to be the stronger predictor of the childhood maltreatment/OCD link (Carpenter & Chung, 2011). The anxious style is characterized by alternate approach and avoidance phases in response to perceived interest and support available from caregivers versus other times when caregivers are aloof and perceived to be uncaring, and/or abusive and punishing when the child approaches for attention and support. The child is caught in a “no-win” situation desiring the caregiver’s protection and nurturing and being shamed and blamed for having the normal human needs of a dependent child. In a later study with a clinical population more severely affected by OCD, the anxious attachment style, sometimes called “anxious-ambivalent,” was predictive of OCD after childhood maltreatment (Boger et al., 2020).

In the only study to date pertaining to attachment style, attachment to God, and scrupulosity, Fergus and Rowatt (2014a) reported a significant correlation between anxious attachment and increased symptoms of scrupulosity. The authors commented that a small but not statistically significant difference was found between the two predominant insecure attachment styles. Anxious attachment was more positively correlated to scrupulosity “beyond the effects of religiosity, negative affect, OCD-relevant dysfunctional beliefs, and attachment insecurities in close interpersonal relationships” (p. 233). The authors noted this was an unexpected finding though further analysis was limited by the study design.

While in this study anxious attachment covaried with scrupulosity, it did not influence overall OCD symptoms (Fergus & Rowatt, 2014b). No correlation between OCD and attachment

style was hypothesized or reported as adjunctive data. The key finding achieved statistical significance; however, the authors noted study limitations of a convenience sample with a much higher degree of no religious affiliation (approx. 40%) than typical United States samples, which may have limited the number of respondents who experience symptoms of scrupulosity. Further research clarifying the mechanism between anxious attachment and development of scrupulosity would help define the nature of this important correlation and could provide important implications for treatment.

Avoidant Attachment

Avoidant attachment is characterized by less approach behavior and, as the name implies, more avoidance of soliciting care and attention from caregivers. Although children will change attention-seeking behaviors to best fit their immediate needs, over time, a dominant style becomes preferred and generalized to apply to new caregivers, as well. In the statistical analysis of Fergus and Rowatt's 2014a seminal study, avoidant attachment did not meet significance as a predictor of scrupulosity possibly due to limitations in the study design. Fergus and Rowatt did not comment on this distinction between the insecure attachment styles except to say that once religiosity was controlled, avoidant attachment no longer had a negative correlation to scrupulosity (p. 233).

The authors made no inference from the data as to why avoidant attachment no longer was correlated to scrupulosity in their study. One can surmise that less religious people with avoidant attachment could be less motivated to seek external validation of their scrupulous doubts. Further research is needed to clarify this important point as it implies further differences in people with these distinct attachment styles based on heretofore unidentified mediators of religiosity.

In other studies of OCD in general, attachment style does not fully moderate variance between OCD symptoms of any content domain, suggesting that current research is insufficiently conceptualizing the factors which lead to development and maintenance of OCD (Mikulincer et al., 2003; C. H. Miller & Hedges, 2008; Siev & Cohen, 2007). More research is needed to clarify the relationship between attachment styles and scrupulosity as it offers a tantalizing hint that it may be much more significant than has been studied.

Attachment to God

Attachment to God is a construct that acknowledges the foundational role of the relational aspect of religious belief for many Christians, as well as for religious people to the deity of other major world religions. Attachment theory (Ainsworth, 1969; Ainsworth et al., 1971; Ainsworth et al., 2015; Bowlby, 1969, 1973, 1980) sets forth a conceptual framework for understanding the quality and function of Christian believers' perceived relationship with God (Proctor et al., 2009).

Being in relationship with God is at the heart of the Christian experience (Stark & Glock, 1968). Scripture attests that God is essentially a personal God who desires to relate to His people (Psalm, 27; Isaiah, 49: 15, 64: 8). In turn God's people are called to love the Lord God and to love their neighbor as themselves (Matthew 22:37-39). (Proctor et al., 2009, p. 245)

Every major world religion presents deities as supernatural, divine, but very real spiritual entities to whom the religion focuses worship and acts of devotion. In Christianity, from start to finish the Bible explicates the complex dynamic of humankind's relationship with a God who, the religion teaches, created humankind in his own image. "So God created man in his own image, in the image of God he created him; male and female he created them" (Genesis 1: 27).

Humans inexplicably bear the “image” of God in having a rational mind, emotional states, specific personality traits, capability of volitional action and creativity, and dependency on relationships with others from birth throughout the lifespan (Proctor et al., 2009).

Even Creation itself is portrayed as a relational act...*imago Dei* is essentially “a relational concept, which calls human beings to exist in a special relationship with God.” (Proctor et al., 2009, p. 245)

This dynamic relationship also bears the imprint of human relationships that have molded us from conception and will continue to influence us until death through certain expectancies based on not only socially learned behaviors, but innate psychological processes of affective regulation that seem to be embedded in our physiology. From our earliest experiences of relationships with caregivers, humans develop not only self schemas, but a projected personification of God based on the pattern of interaction we learn to expect from more powerful beings whom we are dependent upon (Hall & Fujikawa, 2013, p. 277).

A person’s God image not only has multiple layers in terms of how the information is processed, but it also has multiple dimensions such as the biological, cognitive, emotional, motivational, behavioral, and relational dimensions. (Hall & Fujikawa, 2013, p. 277)

The concept of attachment to God expands upon attachment theory to provide a relational context for studying scrupulosity that relates to individual God representations (Kirkpatrick, 1998). A Christian’s style of attachment to God corresponds to the defining behaviors and attitudes present in the attachment styles of adults to their important relationships (R. Beck & McDonald, 2004). These are the same behaviors evidenced in attachment theory but with God substituted as the attachment figure (McDonald et al., 2005). These include “seeking closeness to

God in prayer and rituals, using God as a safe haven to find comfort during times of distress, and using God as a secure base for exploring the environment” (Granqvist et al., 2007, p. 591).

Attachment to God may be a core, dynamic feature of scrupulosity due to the relationship of social identity, in-group belonging in religious sects, and the relative importance of personal spiritual development throughout the lifespan as core moral values and religious teachings are internalized into one’s self concept (Ysseldyk et al., 2010). The concept of an attachment relationship to a personal deity draws upon earlier, well-established psychological theories such as object relations theory, affective theory, and attachment theory to operationalize it as a measurable variable for research. It serves to contextualize a core feature of religiosity within a psychological framework (Proctor et al., 2009).

Both classic and contemporary attachment theorists hypothesize that attachment to caregivers/parents is commonly projected onto an attachment relationship to God (Keefer & Brown, 2018). Belief in a deity functions in similar fashion to attachment with human caregivers (Doron, Moulding, Kyrios et al., 2009, Doron, Moulding, Nedeljkovic et al., 2012). This relationship has been explored since the early days of psychoanalysis.

Although controversial at the time, (Freud, 1927) proposed that the Judeo-Christian God offers individuals a means for a perfected parental relationship, one that can offer unending support and protection in the face of a chaotic universe. Later work in psychoanalysis extrapolated on this view; for example, Rizzuto (1974) found that clients’ conceptions of God often expressed the same thematic issues that were present in childhood parental relationships. (Keefer & Brown, 2018, p. 226)

Attachment theory has been extended from human attachment figures to human to God relationships and validated as the research construct “Attachment to God.” A secure attachment

to God is “a unique dimension of personality” that “is a distinct source of well-being” different than interpersonal attachments (Keefer & Brown, 2018, p. 249). While the specific mechanism of this effect on well-being currently is not known, the converse is also true: an insecure attachment to God can have a negative effect on well-being. “Fears of abandonment, jealousy, and neglect toward God reflected by attachment insecurity can be a barrier to well-being distinct from human relationships” (Keefer & Brown, 2018, p. 250). Research has also found that compensatory attachment bonds can be formed satisfactorily with animals and even to places that evoke feelings of peace and safety when those needs are not met in human relationships. In this way, a basic human need for security is met under adverse conditions (Keefer et al., 2014).

As in human relational attachment, attachment to God is coherent with adult attachment styles and can be studied and conceptualized in similar terms (Cassibba et al., 2008; Stulp et al., 2020). How God is perceived as an attachment figure is theorized to follow the same pattern of attachment with caregivers experienced in childhood, known as the correspondence hypothesis (Kirkpatrick, 1998). In cross-cultural research, “God is construed as more loving in cultures in which parenting is warm and accepting and more distant in cultures marked by rejecting parenting” (Granqvist et al., 2007, p. 591).

Attachment to God posits that God provides functions similarly to a parent as a positive representational model for a young child who provides as a “secure base” and “safe haven” for the Christian. “The securely attached Christian is one who feels confident of God’s ongoing presence, availability and responsiveness, especially in the face of adverse or threatening situations” (Proctor et al., 2009, p. 247). With secure attachment to God, the Christian “confidently moves toward and embraces life, strengthened by his/her knowledge of God’s

future willingness to respond... even if to do so invites challenges and offers opportunities for growth” (Proctor et al., 2009, pp. 246–247).

Secure attachment to God has many benefits for social functioning and mental health. Secure attachment to God is correlated to seeking involvement with and finding social support in a faith community. If a parent is highly religious and models secure attachment to God for their children, the children are also likely to become highly religious (Granqvist, 1998). Stronger religiosity is correlated to well-being with its attendant positive coping skills (Abramowitz et al., 2004; Cohen & Johnson, 2017). Further, with secure attachment to God, the process of deepening one’s faith is likely to be a gradual slope of change. With insecure attachment to God, it is common for people to have a rather sudden, dramatic conversion to religion during times of stress in their lives (Granqvist, 1998).

Individuals with secure God attachment have been found to have a corresponding IWM of a God image that is “loving and caring” (Granqvist et al., 2007, p. 591). Secure attachment to God is associated with psychological well-being and positive mental representations for both God and self (Kirkpatrick, 1998). “God can be viewed as the ultimate attachment (father) figure who is always present, knows and understands his children, and comforts, helps and guides them” (Stulp et al., 2020, p. 265). Having developed a positive representational model of oneself from this place of stability, “the securely attached Christian also understands that he or she is loveable and generally worthy of God’s love. Confident in that knowledge he or she feels reassured and encouraged to continue to value his/herself” (Proctor et al., 2009, p. 247).

The correspondence hypothesis of positive attachment to God has an inverse relationship with attachment security, as well. Insecure attachment to God is presaged by insecure attachment in human relationships, with attendant consequences of negative IWMs of God and self, distrust

of God, and hesitancy to explore life due to not feeling safe (Stulp et al., 2020). Insecure attachment to God has an implicit negative view of God at its core. “Scrupulosity... involves fears that God is unreasonable and punitive” (Singh et al., 2024). Insecure attachment to God has been associated with psychological distress, poor life adjustment, and mental health issues (Exline et al., 2014; Stulp et al., 2020). Further, insecure attachment to God predicts spiritual struggles (Ano & Pargament, 2012).

The insecure profiles of God attachment follow the pattern of insecure adult attachment styles, called “dismissing” or avoidant, and anxious or “preoccupied” in accordance with labels used for adult attachment styles (C. George & West, 2001). Corresponding to childhood experiences, people whose families were “emotionally cold or unspiritual” reported more avoidance of intimacy with God (McDonald et al., 2005, p. 21). Based on an expectation of unavailability or unresponsiveness from caregivers, avoidance of God is a behavior indicative of an insecure-dismissing attachment style in which the person feels uninterested and/or psychologically distant from God (R. Beck & McDonald, 2004).

When people come from “overprotective, rigid, or authoritarian homes” (Proctor et al., 2009, p. 248), their IWM of God reflects ambivalence about God. The insecure-anxious attachment style is marked with preoccupied rumination associated with more anxiety about being lovable and more avoidance of intimacy. These negative beliefs can be a stumbling block to seeking help from religious sources (Stulp et al., 2020).

However, insecurity in God attachment schemas are not immutable. Attachment to God can be strengthened to aid psychological recovery through the correspondence-compensation hypothesis. Fergus and Rowatt (2014a) noted that attachment to God may function in either a compensatory or correspondent manner. The compensatory hypothesis contends that a person

with insecure attachment can find a secure attachment figure in God in order to compensate for a deficit in human attachment relationships. Especially when people lack social support, they may seek God as a compensatory attachment figure. “Individuals’ psychological well-being depends more on their relation to God when interpersonal relationships are non-supportive or after they have dissolved (e.g., after a break-up)” (Keefer & Brown, 2018, p. 249). Both the nature and severity of the threat and the relative availability of supportive people determine how much support is needed. Minor threats to well-being can be managed by reaching out to available attachment figures for reassurance, but in times of severe threat, additional sources of relational comfort may be sought to supplement the need for felt security. In times of crisis, “the criterion for re-establishing equanimity is so high that no one target may suffice” (Keefer et al., 2014, p. 531).

The correspondence-compensation hypotheses are not mutually exclusive, but can be operative for different purposes (Granqvist et al., 2007). Experiences with “sensitive, religious caregivers” can preference a correspondence pathway, while compensation for negative experiences with insensitive caregivers may function to help regulate distress. People with insecure attachment styles reported a tendency for religious beliefs to become more important to them in adulthood (Granqvist, 1998). Seeking compensatory attachment to God is common for people who enter adulthood without personal religious experience. For these people, having parents with little religiosity is actually correlated with more self-reported religious growth in adulthood than adults with secure attachment raised in religious homes (Granqvist, 1998, p. 350).

In other psychological research, the construct of attachment to God has begun to be explored as it relates to psychopathology. Fergus and Rowatt (2014a) suggest that their work on

attachment to God may indicate that it may be more influential toward development of scrupulosity than the cognitive features described in the cognitive theory of OCD:

The purported association between attachment insecurities in relation to God and scrupulosity was supported. . . . Attachment to God thus appears to hold incremental explanatory power above and beyond variables prominently featured within extant conceptual models of scrupulosity. (p. 233)

In other words, insecure attachment to God is a risk factor for scrupulosity. And it has not been accounted for in the cognitive theory alone. This is an important finding because it integrates a core principle of the Christian religion, that a personal relationship is important, within the greater context of psychological study. The effects of attachment to God on other areas of mental health may be vastly under-appreciated, as well. Attachment to God has “received little attention in the trauma literature” (Zeligman et al., 2020, p. 157), but long been recognized as a factor increasing post-traumatic growth and resilience (Kirkpatrick, 1998; Njus & Scharmer, 2020).

In a small body of studies focusing on attachment to God and mental illness, the results are promising (Prout et al., 2012). In a recent study of patients with schizophrenia and schizoaffective disorder, secure attachment to God was found to mediate benevolent paternal representations and enhance recovery. Among those with mild to moderate punitive parental representations, attachment to God was found to buffer the relationship with recovery, and in the low attachment group, the relationship was not evident (Prout et al., 2012).

As it applies to treating scrupulosity, an insecure attachment to God offers a unique therapeutic target for decreasing distress and promoting well-being (Keefer & Brown, 2018). Religious training of clergy is focused around aspects of humanity’s relationship to the divine

among all major world religions and is clearly in their domain of expertise. However, imams, rabbis, priests, and pastors have all reported a great desire to learn from psychologists and use evidence-based methods of addressing scrupulosity in their congregations (Cobb, 2014; Pirutinsky et al., 2009; Rosli et al., 2021; Rosmarin et al., 2011). Identifying attachment insecurities and targeting religious counseling at strengthening attachment security with God could work directly on alleviating OCD. As an effective treatment, it may even be more effective in therapy for reducing psychological distress than working to strengthen attachment security in important human relationships (Keefer & Brown, 2018).

As research continues to define the relationship of OCD and scrupulosity to attachment theory, it is likely that the crossover content between one's religious beliefs and obsessive--compulsive tendencies is intimately related to one's security of attachment to God. Clinical evidence of typical religious obsessions indicates this is so (Dèttore et al., 2017). It seems entirely feasible that increasing secure attachment to God would help to reduce scrupulosity in practical terms. With a secure base of a loving, protective God, the existential uncertainty of religion and the ultimate outcome of life could become more tolerable.

Social Learning

From Janet's era onward, the familial concurrence of OCD was observed and accorded to the appalling social conditions that contributed to mass confinement in asylums for severely impaired people. There has been a bias since the early days of psychiatry toward a medical model of psychopathology that minimizes social influences (Hertler, 2016).

This bias toward medical explanations for complex behavioral phenomenon discounts the reality that behavior is also learned as it has been modelled during opportunity-dependent windows of cognitive and emotional development. An evolutionary view on

psychological development is helpful in this regard because it frames the OCD processes as helpful for ensuring safety in unsafe environmental conditions. (Hertler, 2016, p. 1)

Such environmental conditions are largely dependent on the position of one's social relationships. In the heyday of Behaviorism, OCD was theorized to result from learning abnormal coping skills from inadequate caregivers (Sahakian, 1969). Compared to contemporary research in cognitive behavioral therapy for OCD, this line of inquiry fell far short of describing the acquisition process of obsessional behaviors (Foa & Kozak, 1986). Even among OCD patients' first-degree relatives who also have OCD, it is uncommon for them to share the same obsessional content or compulsive behaviors that could be mimicked (Jenike, 1989). The only exceptions to this are in the case of tic disorders and symmetry and ordering symptoms, which "may constitute a genetically significant symptomatic subtype of OCD" based on shared neurobiologic predisposition (Hanna et al., 2005, p. 13).

However, the content areas and focus of OCD obsessions are often idiosyncratic. The relationship to compulsive behaviors are often not well understood by patients' families or the patients themselves. "When a patient exhibits OCD behavior repeatedly, caregivers experience weariness, anger, irritation, and depression, which add to their already heavy workload." (Singh et al., 2024, p. 130). Fifty-three percent of families of OCD patients report a high level of burden of caregiving second only to 63% of families of schizophrenia patients. The burden of caregiving included disruptions in employment, family leisure, and social contact (Singh et al., 2024). It seems unlikely that parents are intentionally modelling OCD behaviors they want their children to emulate.

Intergenerational Transmission of Obsessive Compulsive Concerns

Researchers also noted the tendency for family members to adapt their own behaviors to accommodate the demands of the OCD patient, which behaviorists thought may have inadvertently resulted in “a constellation of behaviors produced by positive reinforcement” (McFall & Wollersheim, 1979). And this may not be far-fetched because in families of children with OCD, 99% were found to practice routine accommodations to their children’s demands (Mathieu et al., 2015), including answering reassurance questions, modifying routines, or providing items needed for carrying out compulsions (Monzani et al., 2020). Children often particularly seek assistance in avoidance behaviors (Mathieu et al., 2015). “It is common for families to accommodate their child’s anxiety as it is difficult to not enter “fix it” mode to lower distress” (Stevens & Smith-Schrandt, 2023, p. 13).

Whether parental obsessiveness impacts their children’s development of obsessive--compulsive symptoms is not yet understood, though a distinct relationship exists between clinical OCD in children and sub-clinical OCS in their parents (Monzani et al., 2020). Whether social learning transmits maladaptive obsessive traits inter-generationally is not known at this time.

Deficits in Social Communication

Researchers in Iran found distinctly different patterns of communication in families with OCD and depression versus controls (Davani et al., 2022). The quality of relationships between parents and children, as well as habitual styles of expressing thoughts and emotions, can be categorized as oriented toward “conversation” or “conformity.” Families that exhibit open interaction between the parents and children encourage “comfortable and free conditions for

engaging and interacting with all members” (Davani et al., 2022, p. 107). This style has a positive impact on developing their children’s self esteem and confidence in expressing opinions.

In families with high conformity orientations common in traditional societies and more conservative religious sects, respect for parents and elders is more rigidly enforced. These families preference obedience to parents, “emphasize the similarity of beliefs and attitudes” and “prohibit discussion” (Davani et al., 2022, p. 107), which encourages equivocation of members’ attitudes to the family’s acceptable norms. A conformity orientation in family communication was found to mediate both depression and OCD in adolescents and adults, as well as predict overall lower life satisfaction and mental health (Davani et al., 2022). Further, conversation-oriented families tended to have children with secure attachment while families with a conformity orientation tended to have children with avoidant attachment and depression, or anxious-ambivalent attachment and OCD (Davani et al., 2022).

Davani et al. (2022) theorized that in not allowing children to discuss their thoughts and feelings openly, they missed out on working through them with their parents and instead ruminated on those thoughts.

In families with high conversation orientation with open and spontaneous communications, there are always wide debates on various topics, while in families with conformity orientation, there is more emphasis on obedience of children to parents, there are no debates on different topics and no opportunity is given to children to express their opinions and thoughts, so they review their thoughts on their minds and the level of mind rumination rises which results in lower mental health level of children and cause disorders such as depression and OCD in children. (Davani et al., 2022, p. 111)

This is an interesting observation considering that reflective function is a socially learned behavior that is impaired in people with OCD and results in decreased ability to mentalize one's thought process (Kullgard et al., 2013). It makes sense that children who do not practice self-reflection and resultant decision-making in family conversation would have more difficulty mentalizing their thought processes later, and likely a greater risk for getting stuck in the mental trap of indecision, doubt, and worry, and, possibly, eventual obsessional fixation.

Deficits in Social Cognition

While learning theory alone cannot explain the wide variance of symptoms of the OCD or their maintenance, we should not be so quick to move on from considering the impact of social cognition on both initiation and maintenance of OCD. However, the nature of the relationship may have an opposite directionality than first presumed. It may be that it is not the strength of social learning but its deficits that are related to developing OCD.

Insight, the ability to be aware of and correctly identify one's emotions and degree of impairment with psychopathology, has been found to be impaired on a continuum of mild to severe that is continuous with the severity of OCD where lower insight correlates to the "more severe end of OCD spectrum" (Catapano et al., 2010, p. 323). In OCD, "Insight is related to emotional awareness, specifically emotion recognition and empathic concerns" (Manarte et al., 2021, p. 121). These are two different constructs based on whose emotions are being recognized: alexithymia is awareness of one's own feelings and empathy is awareness of other people's. Both have been shown to be reduced in people with OCD, though the specific mechanism related to onset of OCD is not known.

Recognition of negative emotions in both subtypes reveals an overarching bias in attention to recognition of emotions. It may be related to decreased ability to discern facial

expressions of these negative emotional states (J. I. Kang et al., 2012). In a study of relative impact of different emotions, “recognition of disgust in (the) OCD group was associated with greater impairment compared to all other emotional expressions and other groups assessed” (Grisham et al., 2010, p. 257).

The impact of this emotional recognition deficit on social functioning is noted, though little understood. Patients with low insight fare far worse in treatment, and it may be partly due to the inability to recognize and self-regulate emotional states with more adaptive behavioral and cognitive strategies. J. I. Kang et al. (2012) surmise that inability to determine positive or negative emotional states in a self-reflective manner would make it that much harder to manage OCD cognitions that are often related to maladaptive views of the self. It is possible that OCD obsessions contain the nuggets of emotional processing that the person gets stuck in sorting out, which further increases anxiety and compulsions as a maladaptive technique of soothing emotional pain. Certainly, reduced social cognition, which is imperative in navigating social relationships, would have a harmful effect on one’s social functioning. OCD patients are “characterized by marked impairment in social functioning” (Mavrogiorgou et al., 2016).

This can lead to further avoidance of addressing the problems in therapy (Deacon & Nelson, 2008). OCD sufferers tend to lack insight as to the self-perpetuation of their symptoms, but they are typically very embarrassed by outward indications of their extreme distress and frequently attempt to hide obsessive–compulsive behaviors from even close relationships.

It is common for CBT treatment manuals for OCD to devote the first few sessions to detailed assessment of fear-evoking thoughts, feared external situations, feared consequences of not ritualizing, avoidance behavior, and neutralization strategies ... Insufficient attention to this critical phase risks the delivery of treatment that is

inefficient, ineffective, or both ... This is no trivial task, as the identification of such beliefs is a requirement for constructing an accurate case formulation and developing exposure practices that specifically target the patient's idiosyncratic beliefs. (Deacon & Nelson, 2008, pp. 42–43)

Further, mental compulsions may increase even in the absence of compulsive actions in an attempt to conceal extreme dysfunction from social perception due to the extreme distress caused by highly disturbing obsessions (McKay et al., 2004).

Research is still preliminary in this area and the association between social cognition and OCD is unclear. In one study of OCD severity, social cognition and metacognition abilities were measured and found to have no significant correlation. However, depression was found to mediate both OCD severity and metacognition and predicted deficits in social functioning (Mavrogiorgou et al., 2016). The complex relationship is as yet unclear, but there is likely something to this hypothesis that social cognition and OCD are similarly affected by negative emotional experience.

Socioemotional deficits including theory of mind (ToM), have been found in both clinical and non-clinical OCD subjects and may represent a pathway between social cognition deficits and faulty cognitive appraisals in OCD (Grisham et al., 2010; Sprengelmeyer et al., 1997). A similar impact of poor ToM skills and emotional processing deficits seems expected to have an impact on social functioning, which seems likely to correlate positively to OCD severity. As for all of this affecting symptoms of scrupulosity, it would eventually be helpful to compare ToM and social functioning between scrupulosity and other OCD groups.

Considering the foundational connection between scrupulosity and negative self-appraisal (Aardema et al., 2021; Fernandez et al., 2021; Jaeger et al., 2021; Khosravani et al., 2023), it

would make sense for appraisal of others to also be impaired if ToM and/or social cognition are weaker. Further, if more negative self-appraisal has a positive relationship with severity of scrupulosity due to the intensely internalized emotional processing, it stands to reason that it might have a weaker effect on scrupulosity symptoms when OCD obsessions are focused on external targets, such as harm, checking or ordering obsessions, and potentially impacted by poor social cognition skills.

Sensitivity to Social Evaluation

In addition, “OCD has also been associated with an increased sensitivity to social evaluations” (Santamaría-García et al., 2018, p. 579). In a study with an independent variable of perceived social status, “striking differences between OCD patients and healthy controls in the way contextual social information modulates error-monitoring, cognitive control and motor control brain activity” (p. 585) were observed in a social hierarchy context. In the lower social status condition, OCD patients performed poorly at tasks of visual discrimination. The discrepancy disappeared when the OCD patient perceived that they had social dominance (Santamaría-García et al., 2018).

This may hint at a disabling degree of social anxiety (Camuri et al., 2014; Rosa-Alcázar et al., 2021; Sunderland et al., 2017) that impairs cognitive function and is a particular vulnerability in the OCD patients. Further research is needed to extrapolate a causal relationship between social functioning deficits and OCD. How this might vary in scrupulosity patients is quite unknown at this time.

Following on possible future research on social cognition and scrupulosity, another experiment could measure sensitivity to social evaluation for its correlations to scrupulosity symptoms and compare it to other OCD symptoms with an externalizing function, such as

checking, ordering. This could yield interesting information for understanding how fear of self and fear of others manifests in people with different OCD symptom types. This information could be used to identify therapeutic targets in OCD treatment based on clinical measurement of sensitivity to social evaluation.

Development of Morality

The nature of morality has been debated throughout human history and was a key concern of philosophers. A key function of religious education among major world religions is to instruct in the standards of morality for that religion's values and beliefs and to encouraging refining the sensitivity of one's conscience (Badri, 2013; Cohen & Hill, 2007; D. Greenberg & Shefler, 2002; Horowitz, 2002).

Contemporary Catholic scholar, Father Jordan Aumann (2016) advocates a viewpoint that is somewhat parallel to contemporary Positive Psychology's emphasis on personal strengths, the goal of psychological well-being rather than absence of pathology, and emphasis on depathologizing normal struggles in living a meaningful life (Seligman, 2019; Seligman & Csikszentmihalyi, 2000; Vázquez et al., 2009).

As its name indicates, the examination of conscience is an investigation of one's conscience in order to discover the good or evil acts one has performed, and especially to verify one's basic attitude regarding God and personal sanctification. We are not referring to the examination of conscience made prior to confession, which is simply a review and enumeration of one's sins, but of an examination made in view of one's progress in holiness. It should take into account the strength or weakness of one's virtues, as well as the number and frequency of one's sins. To place too great an emphasis on

one's failings may result in meticulousness, anxiety, discouragement, and even scrupulosity.

(Fr. Jordan Aumann O.P., 2016, Chapter 13)

Aumann does not advocate relaxing one's moral standards, only admitting and accepting that human beings are not able to perfectly keep them all the time, keeping a growth mindset where we are aware of our failures but not mired down in defeat which could easily lead to scrupulosity. The important self-judgment is that one is improving over time. To be moving in an arc higher in holiness and closer to God is the aim.

Non-Religious Moral Concerns

The domain of religion encompasses personal morality and ethics, but non-religious people also share these concerns. When an individual's stringent standard of personal conduct reaches obsessive fervor, the pattern of obsessive-compulsive cognitions and behaviors of scrupulosity are evident in even non-religious contexts. But without training in religion or a spiritual focus or interest in religion within the individual, how does scrupulous thinking and behavior develop? One promising avenue of research is emerging that is relevant to scrupulosity within a religious context comes from examining non-religious moral scrupulosity.

While not every focus of scrupulosity is religious, one could arguably say that all scrupulosity is inherently based on ethics. And ethics are based on morals. If morals are the "what," ethics provides the "how." Scrupulous people make much stricter judgments of themselves, and sometimes others, too (Oaten et al., 2009; Ottaviani et al., 2018). However, research has shown that those judgments can be manipulated via disgust which is partially socially transmitted, and perceptions of morality can also be manipulated by disgust, as well (Ottaviani et al., 2018, 2019). It turns out, our moral judgments are not as rational as we think.

Research on moral reasoning has found that moral decisions are more intuitive than logical and easily influenced by sociological and psychological factors (Haidt & Joseph, 2004). The social intuitionist model of moral psychology “deemphasizes the private reasoning done by individuals and emphasizes instead the importance of social and cultural influences...that moral judgment is generally the result of quick, automatic evaluations (intuitions)” (Haidt & Joseph, 2004, p. 814). Further, moral reasoning is influenced by emotions such as disgust before rational reasons for that judgment are determined. A moral judgment is “usually a post hoc construction, generated after a judgment has been reached” (p. 814). We are both morally intuitive and morally rational, though we may use our powers of reason to justify our emotionally-based judgments rather than the other way around.

Our understanding of how self-assessments of moral triumph or failure are made has been influenced by the study of guilt, specifically deontological versus instrumental guilt (Benlahcene et al., 2018; A. Mancini & Mancini, 2015). Guilt infers that wrongdoing has occurred for which one is responsible. It has already been shown that people with scrupulosity often take too much responsibility for negative outcomes and feel guilty even when they have little or no ability to prevent or ameliorate its effects (Basile, Mancini, Macaluso, Caltagirone, & Bozzali, 2014; Chiang & Purdon, 2019).

Deontological guilt differs from utilitarian guilt in that it indicates a violation of one’s conscience or personal ethics that may not result in actual harm to a victim, in which one’s actual culpability typically induces utilitarian guilt (D’Olimpio & Mancini, 2014). Gangemi and Mancini (2017) found that “deontological guilt is related to disgust, and that this relationship could explain why both fear of contamination and fear of guilt are often co-present in obsessive patients” (p. 155).

Research focusing on what factors influence feeling guilt have found that “abnormalities in cognitive control and disgust responding ... also interfere with flexible, outcome-driven utilitarian moral reasoning” (Whitton et al., 2014, p. 152). It seems people with OCD may be mistaking normal utilitarian guilt for deontological guilt.

Cognitive distortions in OCD appear to bias the use of deontological moral reasoning processes (i.e., judging the morality of an action based on the degree to which it adheres to a set of rigid moral codes (Kant, 1983), over more utilitarian reasoning processes (i.e., the idea that what is morally right is what maximizes happiness and minimizes suffering for all affected. (Whitton et al., 2014, p. 152)

Disgust sensitivity and deontological guilt have been correlated with one another and also with OCD. “People with high disgust sensitivity are more affected by deontological inductions which translate to higher immorality, supposedly by lowering their moral self-image” (Parisi et al., 2021, p. 196). This seems to be a case of purposefully doubling down on poor decision-making. Bad behavior becomes a self-fulfilling expectation following a decretion of one’s moral character. Once again, this evidence points to a complex relationship between disgust, deontological guilt, a deteriorating self-image and OCD. “These results might have important clinical implications as they suggest that addressing Disgust Sensitivity in therapy, might also decrease the effect of guilt on patients’ behavior” (Parisi et al., 2021, p. 196).

Such complexities make developing effective therapeutic interventions quite difficult. A modified use of CBT to address deontological guilt has been proposed for research as an evidence-based intervention. “Dramatized Socratic Dialogue is a theory-oriented intervention that combines elements of Socratic dialogue, chairwork, and cognitive acceptance strategies derived from Mancini’s model, which posits that obsessive–compulsive (OC) symptoms stem

from a fear of deontological guilt” (Saliani et al., 2024, p. 63). It is encouraging to see that psychologists continue to innovate new strategies to address old problems as the body of psychological research advances.

Research has further found that “individuals with OCD use more rigid moral reasoning in response to impersonal moral dilemmas compared to healthy individuals, and that this may be associated with reduced cognitive flexibility” (Whitton et al., 2014, p. 152). In other words, in working through the question of guilt, people with OCD are short on control over their thought processes, emotionally charged by disgust, and adhere too rigidly to the rules. They may be taking what should be a normal non-guilty verdict based on utilitarian morality and turning it into a guilty verdict by misapplying the reasoning of deontological guilt—as in “seeing sin where there is none” (Ciarrocchi, 1995, p. 49).

Guilt infers transgression and confers blame. But what specifically has been transgressed in deontological guilt except, at its heart, a standard for behavior that is personally ascribed to and socially transmitted. This foundational piece is morality, a sense of right and wrong and beliefs about the way people should behave. In other words, the bedrock of human culture. Scrupulosity, then, is but a permutation of morality, or rather, deontological moral judgment, super-charged and twisted, but based nevertheless still based on standards that are recognizable to other people regardless of culture (Graham et al., 2013).

Moral Foundations Theory

Moral foundations theory is a recently developed field of social psychological research that attempts to define that theoretical bedrock, arguing that innately to our species, all human cultures advocate ethics for conduct based on a shared moral belief system, however that may be differently exercised in practicality and values weighted within that culture (Atari et al., 2023;

Graham et al., 2013; Haidt & Joseph, 2004). That people may have an innate sense of morality has been explored in research on empathy in infants.

Research now suggests, for example, that children 5 months old, and perhaps even as young as 3 months old, have a basic sense of right and wrong in social relationships that has not been learned, is not based on any kind of higher-order moral reasoning, and may in fact be an evolved adaptation. (Njus & Okerstrom, 2016, p. 230)

In the past three decades, moral foundations theorists have determined a core set of five moral values common among widely disparate cultures. A recent large cross-cultural study used a new instrument devised to measure these constructs, the Moral Foundations Questionnaire–2(MFQ-2) to validate these five moral domains across 19 populations, including non-Western cultures on five continents, and across major world religions (Atari et al., 2023). These five core moral domains are:

- Care versus harm
- Fairness versus cheating
- Loyalty versus betrayal
- Authority/respect versus subversion
- Purity/sanctity versus degradation. (Haidt & Joseph, 2004)

Even a cursory glance reveals much overlap with common concerns of scrupulosity and OCD, such as harm obsessions and violations of purity inspiring compulsive cleaning. The values of the foundational moral domains are aspirational and sometimes come in conflict, which could easily cause confusion when making moral judgments (Haidt & Joseph, 2004). When they are misused to decide deontological guilt in place of utilitarian decision-making, the conditions are perfect to grow scrupulosity for those who are inclined to obsessive–compulsive thinking and behaviors.

Attachment theory also has implications for moral foundation theory. Attachment to God has been studied in relation to the five moral domains. “ATG avoidance was negatively related to the care, fairness, authority, and purity foundations, while ATG anxiety was positively related to the in-group loyalty and authority foundations” (Njus & Okerstrom, 2016, p. 230). It seems likely that one’s security of attachment to God influences how one perceives morality, though further research is, of course, needed to shore up those hypotheses. Once it has been delineated, those results could be very helpful in deriving the appropriate targets for therapy, both to increase secure attachment and to address misjudgment of moral questions.

Moral foundations theory then has important implications for scrupulosity. Atari et al.’s (2023) cross-cultural, multi-religion study found that there are similar religious concerns across religions for each of the moral domains. For example, theological dogma based on interpretation of moral imperatives has important implications for social issues and inter-group cooperation based on their interpretation of the purity/sanctity vs. degradation domain.

If purity is simply what God disapproves of, then purity can arguably be regarded as a meta-ethical concern such that whatever God disapproves of is “impure,” which could include a diverse array of transgressions such as eating pork, charging interest, protesting against clergy, or neglecting to fight for one’s religion. (Atari et al., 2023, pp.

1179–1180)

Some critics have questioned whether religion is inherently contained within the purity/sanctity domain, but that is a question of theological importance best left to religious experts. However, the psychological processes triggered by the questions become clearer when moral foundations theory is applied. It helps to at least understand the big questions of life, if not its answers.

Relevance of Terror Management Theory

Life's big questions, however, are very much in the domain of scrupulosity. It does not serve patients well in attempting to reduce their anxiety, depression, and OCD symptoms to minimize the existential angst of life. And the complex syndrome of scrupulosity is squarely centered on the most meaningful and consequential questions of all. We are the only species who seem to understand that we, ourselves, will one day die. This reality is grim for those who hold no religious belief to soften the blow of our eventual non-existence in the physical realm. And even those who do believe in an after-life often struggle to believe in something that may be assured theologically and through personal belief, but is objectively unverifiable in reality.

This unresolvable issue of our mortality and uncertainty of what happens after lays at the heart of the dilemma. "Awareness that death is inevitable and can occur at any time for a multitude of unpredictable and uncontrollable reasons ... makes humans prone to debilitating terror" (Vail et al., 2010, p. 85). This is a lifelong problem. "From early childhood to the end of our lives our sense of psychological security, our ability to manage our potential for terror, depends on coping with awareness of our vulnerability and mortality" (J. Greenberg, Vail, & Pyszczynski, 2014, p. 88).

From birth, the child has innate distress and fear reactions to what endangers its survival, but between 3 to 5 years of age, explicit concerns about death arise. At this point, the fundamental way we control those anxieties is by sustaining the love and protection of our caregivers. We do that by coming to understand the world the way our seemingly omnipotent parents do and by trying to be the lovable beings they want us to be. (J. Greenberg, Vail, & Pyszczynski, 2014, p. 87)

Terror management theory (TMT) (Arndt et al., 2004; J. Greenberg, Pyszczynski, & Solomon, 1986; J. Greenberg, Vail, & Pyszczynski, 2014; Juhl, 2019) posits that the awareness of death is a potent source of existential anxiety to which humanity has found certain psychological ways of coping. “As a solution to the persistent and pervasive problem of death...TMT helps explain why people develop and maintain religious beliefs, how various religious orientations differentially address universal existential concerns, and what the social costs and benefits of religion are” (Vail et al., 2010, p. 85).

Religious belief is a powerful psychological coping mechanism.”Believing ourselves to be spiritual beings with the potential of becoming part of an eternal dimension free of natural laws is perhaps the most straightforward way of escaping our mortal and corporeal nature” (Vail et al., 2010, p. 86). Belief in ourselves as primarily spiritual beings also functions to reduce fear of physical illness and aging, which leads paradoxically to increasing faith in an afterlife as one ages. “Spiritually oriented people respond to mortality salience (MS) by increasing the distinction between their bodies and selves” (Vail et al., 2010, p. 86).

The terror of death can be mitigated by engaging in a variety of sociocultural activities promising symbolic permanence, of which religion is one powerful answer, but can be also found in culturally significant ways of being remembered after death. “Cultural worldviews and self-esteem also provide symbolic immortality, whereby people construe themselves as valuable and enduring parts of an eternal natural or social entity greater than themselves” (Vail et al., 2010, p. 85). TMT posits that humans have an inner drive to join socially meaningful groups that confer them with a shared belief in some form of permanence for which they can qualify. This gives a sense of order, meaning, and significance to their lives and thus confers self-esteem. Secondly, they will strive to maintain that status by meeting or exceeding whichever standards

the group holds for success. This further reinforces self-esteem by inferring that one has made contributions worthy of permanence in that culture (Vail et al., 2019).

A large body of research has expanded on these ideas and found that religion and/or finding purpose in culturally significant non-religious activities serves the same purpose of bolstering self-esteem against the threat not just of annihilation, but of being forgotten (J. Greenberg, Vail, & Pyszczynski, 2014). Then, when a threat to one's self-esteem occurs such as a reminder of mortality, one's membership within the cultural worldview bolsters their self-esteem. "Studies have shown that boosting self-esteem or faith in one's worldview decreases the accessibility of such thoughts and reduces anxiety" (Vail et al., 2010, p. 85).

People engage in many socially relevant ways of being remembered after death, such as contributing works of art and literature, building permanent structures, founding charities that bear their name, having children, and developing expertise to make significant contributions to their field of work. TMT theorizes that human well-being rests on one's ability to create "an anxiety buffer system that provides a sense of self-worth and meaning in life" (Juhl, 2019, p. 303). The anxiety-buffering benefit of religious belief increases self-esteem and reinforces culturally held views which adaptively serve to decrease the thoughts of mortality by enhancing self-esteem.

In terms of religiosity, "people who believe in an afterlife become more confident in its existence after being reminded of death" (Vail et al., 2010, p. 86). They also profess greater faith for their own religions' gods ... and reduced their faith in alternative religions' deities" (J. Greenberg, Vail, & Pyszczynski, 2014, p. 101). Mortality salience may contribute to scrupulosity indirectly for people who hold religious beliefs in that it could reinforce the need for reassurance of the certainty of life after death while reinforcing or even increasing the person's intolerance

for uncertainty. On the contrary, mortality salience could bolster the person's preexisting belief in an afterlife and present an effective therapeutic tool for addressing scrupulosity. This question could be a fruitful subject for future research that could perhaps lead to identifying mediating factors for intolerance of uncertainty and eventually lead to therapeutic interventions.

Another study of people with atheistic beliefs found that introducing a reminder of mortality did not increase supernatural belief (Vail et al., 2012). However, research on implicit processing has revealed that "even people who explicitly deny religious beliefs behave like "implicit theists," and when reminded of death, indicate a general desire for a literal afterlife, even though they do not explicitly accept it as possible" (J. Greenberg, Vail, & Pyszczynski, 2014, p. 102).

These findings suggest that mortality salience "would lead all people, regardless of prior belief to implicitly (automatically) turn toward literal immortality, such as that offered by religions, for comfort, whereas more consciously deliberate (explicit) responses would be modified according to one's explicit worldview beliefs" (J. Greenberg, Vail, & Pyszczynski, 2014, p. 103).

Attachment theory has important contributions to understanding TMT, as well. For securely attached adults, romantic partners serve to bolster self-esteem and reduce death anxiety. "Securely attached people, compared to those insecurely attached, are less prone after MS to worldview defense and more prone to seek romantic intimacy" (J. Greenberg, Vail, & Pyszczynski, 2014, p. 103). For people with anxious attachment styles, mortality salience increases a desire to contact one's parents, showing an unresolved approach-avoidance dilemma with the original attachment relationships. However, "securely attached people, compared to those insecurely attached, are less prone after MS to worldview defense and more prone to seek

romantic intimacy” (J. Greenberg, Vail, & Pyszczynski, 2014, p. 103). Children, however, provide the most emotional insurance against mortality salience.

Adults do get some terror management value from their parents, but it is even more likely that they get a sense of death transcendence from being parents, a point emphasized by Lifton (1979). Children provide a literal continuation of some of one’s biological material, but as Lifton notes, they also may carry forward one’s ancestral line; one’s name; one’s values and one’s worldview, including one’s religious, regional, and national identifications; and one’s valued possessions and activities.” (J. Greenberg, Vail, & Pyszczynski, 2014, p. 104)

Attachment to God and Mortality Salience

In the only study to date to correlate religiosity and insecure attachment to God with a mortality salience cue as a terror management manipulation, Pirutinsky (2009) found intra-group differences between Orthodox Jews who had been converted to their faith and those who were born into it. Recall that previous research linked religious conversion to insecure attachment via a compensation mechanism where attachment to God compensated for inadequate attachment to primary caregivers (Fergus & Rowatt, 2014a). In Pirutinsky’s (2009) study, converts to Orthodox Judaism endorsed “relying on God as a surrogate attachment figure to help regulate distress” (p. 254). Native-born Jews who reported secure attachment had a less distress-regulating attachment to God. Only those with a compensation schema of attachment to God reported a strong reaffirmation of their sense of protection when confronted with mortality reminders.

For those whose religious beliefs evolved through socialized correspondence, God seems unrelated to distress regulation. Thus, despite their secure working model of a loving

God, “correspondents” do not seem to benefit from their religion to the same extent as “compensators.” (Pirutinsky, 2009, p. 254)

These findings confirm multiple previous studies on attachment insecurity, strategies of correspondence versus compensation in attachment, mortality salience, and even attachment security correlation to distress self-regulation. All that is missing is the empirical question and answer of how all of this affects scrupulosity. And that, in a nutshell, is an example of the state of research on scrupulosity to date. There are many interesting theories that clearly relate to it, and tantalizing findings that come close to touching on it directly, but do not quite reach an examination of the issue of religious and moral concerns in people with OCD.

CHAPTER VII: FUTURE DIRECTIONS FOR RESEARCH AND DEVELOPMENT OF EVIDENCE-BASED THERAPIES

In this review of the research literature about scrupulosity and, by necessity, about OCD as a whole, several important areas stand out for their potential to influence how scrupulosity is conceptualized and treated, hopefully with greater success in the future. One recommendation stands above all others as the most likely to result in reduction of scrupulosity symptoms. After that, these recommendations are in the order of my thought process while researching this dissertation, not necessarily in order of importance. There are many potential areas for improvement in addressing scrupulosity in clinical practice.

Of main importance for future therapeutic development, attachment theory provides a relational context for addressing insecure attachment to God, and represents the most promising avenue of repair for many of the OCD-related cognitive distortions that both cause and result from scrupulosity. Using what is known about the compensation hypothesis where anxious attachment to God can be shifted toward secure attachment should be emphasized in developing therapies. Innovations that include attachment therapy as an adjunctive target in addition to existing evidence-based therapies should be prioritized for research because there are several evidence-based therapies for both attachment and maladjusted cognitions in OCD that could be combined to address both issues. It is essential to strengthen existing relationships with caregivers, family, and friends. Increasing social support to counteract self-imposed isolation should be an initial goal of therapy due to the loneliness experienced with insecure attachment.

Second, research on the domains or types of religious and moral obsessions to facilitate integration of religious content into therapy. Focusing on inclusion of the content of scrupulosity obsessions likely necessitates diving into the deep waters of the patient's religious belief.

Psychotherapists are typically anxious about taking that step along with their patients.

Strengthening communication with religious clergy to better work together for the patient's best interest could make a huge difference by uniting the person's separate worlds. When seeking mental health and religious counseling or pastoral care, these separate domains have typically been siloed with little cross communication. Or, more tragically, each considers it the domain of the other, and the person's bid for help falls in the chasm between the two and the person never receives any help.

Third, there are few detailed case studies of patients with scrupulosity, and the research needs to fill this gap so that the diversity of experience within scrupulosity, and in experiences treating it, is better understood. Qualitative research would also be helpful in identifying themes of the patients' lived experience that are poorly addressed in treatment, especially as it pertains to religious minorities in a multi-cultural setting. As a field, psychology can do better.

Fourth, moral development research has been in the shadows of psychology almost as fully as research on spiritual development. The insights of the past two decades about how morals are internalized from a societal process of moralization to an individual's internalization of morality throughout psychological development has come a long way but has been more in the domain of social psychology and philosophy than psychology. This chasm needs to be bridged with integration of moral development with other developmental psychology research. This is a human concern, arguably what makes us human, so it needs to be treated with the seriousness of the subject itself.

Fifth, further research into moral foundations theory could really help in identifying common moral themes among the unique concerns of people with non-religious scrupulosity. Non-religious moral scrupulosity is projected to grow in the decades to come as a move toward

secularization continues in Western culture. Moral scrupulosity can also be tangled up with other religiously syncretistic, superstitious, and fantastical beliefs that can make a person's clinical presentation anachronistic to others. Currently, scrupulosity is considered to be part of OCD in the taboo thoughts category, which fails to recognize how different it is from other OCD subtypes, and much less identify it properly as scrupulosity.

Sixth, the progression of disease severity of OCD is little understood, especially as themes of obsessional content progress from mildly disturbing to tormenting. Dylan, my scrupulosity patient, is a good example of the escalation of scrupulosity from repulsive sexual content to moral self-condemnation to obsessional fears of eternal damnation and eventually, to suicidality. Better diagnostic tools for determining not just current symptom severity, but what stage of the disease is currently being experienced would help in getting patients the level of care they desperately need. It is unknown how many people complete suicides because they just cannot take living with scrupulosity anymore.

Seventh, increase coverage of OCD in professional training programs. Due to the long delay in adequately defining and addressing OCD throughout the history of psychology, OCD as a whole is not yet well understood by many mental health practitioners. OCD receives scant attention in professional training programs despite its severity and high prevalence compared to other serious mental illnesses. Many therapists report feeling under-prepared to take it on when they do. In one qualitative study, "lack of initial self-confidence in having the necessary skills and competencies to effectively treat people with OCD, was highlighted by a number of the health professionals interviewed" (Gellatly et al., 2017, p. 7). Doctoral and masters programs need to focus more on educating mental health providers about this highly prevalent disease.

Eighth, increase availability of effective evidence-based therapies for OCD, which are still not widely practiced. In a community-based study, it was found that “only a minority of therapists (27.3%) used exposure and response prevention (ERP) with OCD patients” (Reese et al., 2016, p. 79). Further, there are few therapists with specialized training in OCD. A professional training program founded by the International OCD Foundation to enlarge access to OCD-specific interventions, the Behavior Therapy Training Institute, had trained fewer than 1,000 therapists worldwide in its first three decades (Reese et al., 2016). It is even more difficult to access inpatient care specifically for OCD in the current climate of the euphemistically named “managed care.” Insurance coverage needs to be mandated for OCD at the level of severity identified

Ninth, increase identification of OCD in clinical practice. OCD needs to be included among the standard clinical interview questions in every new patient intake. Once the right questions are asked, scrupulosity quite often shows up in different disguises. The Florida Obsessive–Compulsive Inventory Revised (FOCI-R) is a well-validated self-report OCD assessment tool used in practice (Aldea et al., 2009; Storch et al., 2007). There is also a pediatric version, the Children’s Florida Obsessive Compulsive Inventory (C-FOCI: Storch, Khanna, et al., 2009). The FOCI-R has been translated from English to Swedish (Aspvall et al., 2020), Indonesian (Ticoalu et al., 2024), Chinese (Cao et al., 2021), and Thai (Saipanish et al., 2015). The FOCI-R and C-FOCI have much clinical utility due to brevity of 25 questions separated into two parts: a symptom report and, unlike other popular screeners, a measure of severity (Sandoval-Lentisco et al., 2023). This makes it possible to repeatedly check for progress and use in measurement-based care with no impact on reliability due to test-retest or practice effects.

A self-report tool specifically aimed at scrupulosity, the Penn Inventory of Scrupulosity-Revised (PIOS-R; Huppert & Fradkin, 2016; A. Phillips & Fisak, 2022) has also been well validated. The PIOS-R has been translated from English to Spanish (Gallegos et al., 2018), and for culturally-sensitive use with Muslim patients, it has also been translated to Urdu (Ghayas et al., 2024). Much work remains to be done in providing further culturally-sensitive assessment tools for different populations.

Tenth, higher education programs for mental health practitioners need to provide culturally-sensitive education about religion, focusing on diversity, equity, and inclusion issues of serving patients better. Many patients report they want to include their faith in their treatment and need their therapist to honor their beliefs. Not asking about their religious belief is the same as discriminating against it. Integrating spiritual issues into mental health care should not be considered the purview of religious counseling, either. The case of scrupulosity eminently represents the comingling of spirituality and mental illness that is best addressed by clinical psychology with culturally-informed religious knowledge. Further, the psychological function of religion as both a protective factor and cause of psychological harm is underappreciated. Spiritual abuse can and does occur, and psychologists and therapists would be as remiss to ignore it as any other type of abuse.

Eleventh, there is still a lot to learn from how other people in other cultures and historical periods conceptualized scrupulosity, as well as other mental illnesses. In several eras of history, similar sound advice was given, and then lost. The field of psychology is likely overlooking other helpful information about treating mental illness because it does not fit the pedagogical paradigm. Historical literary sources should be mined for hidden gems.

Twelfth, the scientific study of religion in general is only recently gaining support among psychologists and within graduate professional training programs, further demonstrating a bias against the wisdom held within religious experience, a subsequent lack of qualitative research, and an overall disregard for the “lived experience” model of scientific inquiry and pedagogy related to religious beliefs and practice. It is high time to heal the divide between psychology and religion that was psychology’s original sin.

Lastly, scrupulosity is significantly overlooked in research partly due to its placement in the DSM-5 and DSM-5-TR. Not only is it glossed over with just a few words describing religious or moral concerns, but it may not be classified appropriately under OCD. Like its cousins acknowledged to be separate disorders on the OC spectrum, hoarding and trichotillomania, scrupulosity is a unique manifestation of obsessive–compulsive symptoms. But unlike the rest of the OC spectrum, it mainly seems to comprise hidden compulsions, such as praying. These are phenotypical distinctions that are blatantly ignored. Besides the usual criticism of the DSM as an overly medicalized symptom-based system of classification, the nosology needs to continue to evolve toward an organization more akin to psychology than medicine.

Even if all these recommendations were to be enthusiastically met and spark sweeping changes, scrupulosity is likely to remain a difficult clinical issue because it is highly complex, greatly diverse in presentation, and deeply meaningful to the people suffering from it. Hopefully, the research summaries, analysis, and specific suggestions for future research that have been included in this review will be helpful in treating it more effectively in the future.

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