THE RELATIONSHIP OF REFLECTIVE FUNCTIONING AND SEVERITY OF AGORAPHOBIA IN THE OUTCOME OF A PSYCHOANALYTIC PSYCHOTHERAPY FOR PANIC DISORDER

By

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ABSTRACT

The relationship between reflective functioning and severity of agoraphobia in the outcome of a psychoanalytic psychotherapy for panic disorder.

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This study examined the relationship between reflective functioning and severity of agoraphobia in the context of an outcome study investigating psychoanalytic psychotherapy for panic disorder. The DSM-IV identifies two subtypes of Panic Disorder: Panic Disorder with and without agoraphobia. The agoraphobic syndrome is associated with the most impaired end of the diagnostic continuum, the poorest prognosis, and lower response rates to existing efficacious treatment. A better understanding of the patients who develop severe agoraphobia is important in guiding interventions.

This study involved secondary data analysis drawn from two studies. In the first, Milrod et al. conducted a randomized controlled trial of Panic Focused Psychodynamic Psychotherapy (PFPP) v. Applied Relaxation Therapy (ART) for panic disorder. As part of this larger project, Rudden et al. conducted a pilot study of reflective functioning (RF) in patients enrolled in the Milrod's study. The Reflective Functioning Scale is a validated measure of individuals' abilities to understand mental states in themselves and other people and to link mental states to behavior and symptoms. Impairments in reflective functioning have been associated with a range of psychiatric disturbances, and

studies have demonstrated that improvements in RF are related to response to psychotherapy in patients with borderline personality disorder. For this reason, an investigation of the relationship between severe agoraphobia and reflective functioning is an important next step in better understanding this group of patients.

The study participants were 30 patients with panic disorder with or without agoraphobia who completed both studies. This project determined that reflective functioning is not related to severity of agoraphobia. Rather, within this population, there is a large range of RF, suggesting that this is a heterogeneous group. As a secondary aim, this study investigated whether baseline panic specific reflective functioning (PSRF) is associated with poorer response to PFPP and ART. While PSRF did not moderate outcome, this study found that patients with severe levels of agoraphobia did significantly better in PFPP than in ART, the first time a psychodynamic treatment has demonstrated effectiveness in treating agoraphobia.

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CHAPTER 1: INTRODUCTION

Patients with panic disorder suffer from overwhelming anxiety and physical symptoms that feel as if they are coming "from out of the blue" (American Psychiatric Association, 2000). Unable to make meaning of symptoms or connect them to emotional triggers, patients often experience the attack as confusing and frightening. For some, life becomes a challenge because of the symptoms. For others, panic attacks become associated with external situations, and avoidance of those situations becomes their primary coping strategy. Agoraphobic avoidance often becomes increasingly pervasive over time. As different situations become associated with panic, day-to-day functioning becomes more and more limited. In this way, panic disorder can ravage interpersonal and occupational functioning, and panic disorder with agoraphobia creates an even more complicated clinical picture.

Panic disorder carries a current prevalence rate of 3.7 percent in the population and may exist with or without agoraphobia (Kessler et al., 2006). Pharmacotherapy is the first line treatment for panic disorder (American Psychiatric Association, 2007). However, patients relapse when tapered off medication, and many patients with panic disorder either do not tolerate the side effects of psychotropic medications or refuse to take them (Marks, et al., 1993, Barlow et al., 2000, Hoffmann et al., 1998). Cognitive behavioral therapy (CBT) is the other first line intervention, as it is the psychotherapy with the best documented efficacy for the treatment of panic disorder in the current psychiatric literature (American Psychiatric Association, 2007; Lydiard, Otto, & Milrod, 2001; Barlow et al., 2000, Ost et al. 2004, Kenardy et al. 2003). Despite these findings, within the broad category of panic disorder, CBT is not helpful for all patients and

incomplete response, relapse and non-response rates remain significant (Barlow et al., 2000; Craske et al., 1991; Marks et al., 1993, Shear, Leon, & Speilman, 1994).

A better understanding of patients who do not respond to the well-studied empirically supported treatments is important, as panic disorder is associated with high rates of utilization of medical services, poorer functioning on a range of psychosocial indexes, and elevated rates of suicide (Hollifield et al., 1997; Markowitz et al., 1989). In particular, patients who develop severe levels of phobic avoidance have consistently demonstrated poor response in outcome studies. Not only are patients with high levels of phobic avoidance less likely to respond to efficacious treatments, but those who do recover are more likely to relapse (Brown & Barlow, 1995; Kessler et al., 2006; Noyes et al., 1990; Pollack & Otto, 1997; Slap & den Boer, 2001). In spite of this well-documented finding, little empirical research has explored underlying factors that contribute to this disparity.

A study of a psychoanalytic psychotherapy offers a unique opportunity to broaden our understanding of the poor outcome associated with agoraphobia. Whereas cognitive behavioral therapy addresses manifest symptomatology, emphasizing exposure and cognitive restructuring, dynamic treatment targets patients' unconscious conflicts, defensive patterns, and capacity to understand mental states that precede and contribute to these surface symptoms. Within the context of a larger investigation of psychoanalytic psychotherapy for panic disorder, the current project will offer the first empirical exploration into a psychodynamically based understanding of agoraphobic avoidance.

This study will be drawn from two larger projects: Barbara Milrod, principal investigator, conducted the parent study, a randomized, controlled trial of Panic Focused

Psychodynamic Psychotherapy (PFPP) vs. Applied Relaxation Therapy (ART) for panic disorder with and without agoraphobia (Milrod et al., 2007). PFPP was developed by Milrod and colleagues (Milrod et al., 1997). PFPP is a 24 session, 12 week manualized psychotherapy, based on a psychoanalytic understanding of the etiology and treatment of panic disorder. ART is a cognitively based psychotherapy for panic disorder that has demonstrated efficacy for panic disorder, but has been shown to be less effective than Cognitive Behavioral Therapy (CBT) (Craske, Brown, & Barlow, 1991; Ost & Westling, 1995). Outcome analyses of the RCT demonstrated that PFPP has efficacy for panic disorder. This is the first time that efficacy has been demonstrated for a psychoanalytic treatment for a DSM-IV anxiety disorder [This study will be described in greater detail in the literature review].

As part of this larger project, Rudden and colleagues conducted a pilot study of Reflective Functioning in patients enrolled in the parent study. The Reflective Functioning Scale (RF) is an operationalized and validated measure of mentalization. The concept of mentalization is broadly defined as the ability to understand mental states in oneself and in others. The capacity for mentalization is thought to play an essential role in both self development and self regulation. As a result of a complex interplay of developmental processes, individuals vary in the degree to which they are able to understand their thoughts and feelings (Fonagy et al., 1991; Fonagy et al., 200; Fonagy & Target, 2005). For individuals with impairments in RF, other people's minds are opaque and behavior appears unpredictable (Fonagy et al., 2002; Slade, 2005).

Rudden and colleagues developed a brief interview designed to assess RF in the panic disorder population. They adapted the RF scale to assess the level of Panic

Specific Reflective Functioning (PSRF) in this sample. PSRF is the capacity to think about panic attacks in terms of underlying mental states and the meaning of physical symptoms (Rudden et al., 2006; Rudden et al., in preparation). Rudden and colleagues demonstrated that RF is not typically impaired in the panic disorder population. However, there was a range of RF in this sample, reflecting a continuum of mentalizing capacity. In addition, they found that subjects' PSRF was typically lower than their general reflective capacity (Rudden et al., in preparation). Fonagy and colleagues have suggested that RF may not be a stable skill across relationships (Fonagy et al., 1998). In Rudden's investigation, patients suffered from a circumscribed area of impairment in RF. While the ability to think about attachment relationships was typically preserved, these patients were limited in their ability to think about their panic attacks (Rudden et al., in preparation).

Applying the concept of RF to agoraphobia is particularly relevant, as a body of psychoanalytic literature describes the object-relational disturbances and ego weaknesses that predispose these patients to developing phobic avoidance (Frances and Dunn, 1975; Milrod, 2007; Shear et al., 1993). Becoming autonomous, not only in terms of functioning, but more importantly, in distinguishing one's own mental states from those of important objects, can be highly conflictual for this group (Frances and Dunn, 1975; Milrod et al., 1997; Milrod, 2007). These patients suffer from pervasive curtailments in their actual functioning that may bespeak a more severe internal deficit (Frances and Dunne, 1975; Milrod, 2007). The rigid defensive position required to engage in severely avoidant behavior relates to a profound constriction of internal experience; in order to maintain this stance, these patients often rely on "not knowing" as a defense, displacing

internal conflicts onto external situations (Milrod, 2007; Rudden et al., in 2008). The very nature of this crippling fear of benign situations suggests that these patients are disconnected from their emotional lives, having limited insight into their own minds. In addition, individuals with agoraphobia often rely on "phobic companions," a significant other on whom they are dependent to function and enter situations (Deutsch, 1929; Frances and Dunn, 1975). This dependency reflects a lack of security and autonomy in the way the world is approached. This project hypothesizes that patients who are most avoidant may also have the most difficulty both distinguishing their own minds from those of important objects and verbalizing their affective experiences.

The current study will assess the relationship between reflective functioning and severity of agoraphobia, with the hypothesis that the greater the level of phobic avoidance, the greater the impairment of RF and PSRF. Impairments in RF have been associated with greater interpersonal difficulties, psychiatric disturbances and attachment difficulties (Fonagy et al., 1996; Fonagy et al., 1991; Slade, 2005). Therefore, establishing whether patients with high levels of phobic avoidance suffer from deficits in RF may enlarge our theoretical understanding of this disorder. As a separate investigation, this study will also examine whether or not level of PSRF at baseline predicts response to PFPP. Rudden and colleagues determined that patients' ability to think about their panic attacks (PSRF) improved in PFPP but not ART (Rudden et al., 2006). It is possible that PSRF at baseline also moderates response to PFPP and ART. As PFPP is a treatment that aims to enhance the ability to make meaning of panic symptoms, patients with impairments in PSRF may do better in PFPP than in ART.

CHAPTER 2: LITERATURE REVIEW

The present study examines the relationship between agoraphobia and reflective functioning in the context of a study of Panic Focused Psychodynamic Psychotherapy (PFPP). This literature review is presented in five sections, beginning with an overview of the diagnosis of panic disorder and a discussion of the limitations of first-line interventions. In this vein, this section discusses a subset of patients who do not respond to these treatments: patients with severe levels of agoraphobia. In the next section, major and competing formulations of the etiology and treatment of panic disorder are reviewed, including neurobiological, cognitive behavioral and psychodynamic perspectives. The third section reviews of the concepts of mentalization and reflective functioning (RF). This section presents the theoretical basis for RF and reviews the empirical research documenting the relationship of RF to attachment status, psychiatric difficulties and change in psychotherapy. In the fourth section, an argument is made for the relationship between impairments in RF and the development of severe levels of phobic avoidance. In the final section, PFPP, a psychodynamic treatment for panic disorder, is reviewed, including preliminary studies of the treatment and the relevance of RF in thinking about PFPP's process and treatment outcome.

Panic Disorder with and without Agoraphobia:

A review of the Syndrome:

Definitions:

A panic attack is defined as the sudden, unexpected onset of fear that is accompanied by the presence of four or more physical symptoms. Physical symptoms include but are not limited to racing heart, sweating, dizziness, nausea, and a fear of dying or losing control. Panic attacks typically peak within ten minutes of onset. A diagnosis of panic disorder is given when a patient suffers from recurrent unexpected panic attacks and evidences one of the following symptoms: persistent anxiety about the possibility of having more attacks, worry about the ramifications of the attacks, or a modification of lifestyle in order to avoid having more attacks. These symptoms must be present for at least one month to meet criteria for panic disorder.

There are two subtypes of panic disorder: panic disorder with agoraphobia and panic disorder without agoraphobia. Panic disorder with agoraphobia is diagnosed when the patient also meets DSM-IV criteria for agoraphobia. Agoraphobia is defined as the fear and avoidance of situations in which it might be difficult to get help or escape, particularly in the event of an unexpected panic attack. Typical situations include but are not limited to crowds, open spaces, new or unfamiliar places, and public transportation. In order to meet criteria for agoraphobia, the patient must report persistent avoidance of several situations, only tolerate these situations with marked distress, or require a companion to enter the situation (American Psychiatric Association, 2000).

Prevalence*:*

The lifetime prevalence for panic disorder without agoraphobia in the general

population is 3.7 percent. The lifetime prevalence of panic disorder with agoraphobia is 1.1%. .8% of the population suffers from an isolated panic attack and goes on to develop agoraphobia without panic disorder. Although these patients do not continue to suffer from panic attacks, this syndrome results in profound restrictions in social and occupational functioning. 22.7% of the general population suffers from an isolated panic attack without going on to develop panic disorder or agoraphobia (Kessler et al., 2006). It might be that a better understanding of panic disorder is also relevant for clinicians who are treating patients without the disorder who may encounter transitory panic symptoms during their lifetime.

Clinical Course of panic disorder: The impact of severe agoraphobia*:*

Panic disorder is a treatable illness. Pharmacotherapy and cognitive behavioral psychotherapy have both demonstrated efficacy for panic disorder and are considered the first line treatments (American Psychiatric Association, 2007; Lydiard, Otto, & Milrod, 2001). However, a significant portion of patients who receive these interventions do not respond. In the credibly conducted CBT study that found the highest response rate, Marks and colleagues reported that 29 percent of subjects were classified as "nonresponders," continuing to suffer from panic attacks upon termination of the protocol (Marks et al., 1993). Barlow and colleagues' multi-center study of panic disorder identified a 48.1 percent response rate to CBT and a 51 percent response rate for patients treated with CBT in addition to imiprimine (Barlow et al., 2000). Although CBT is the treatment with the best documented maintenance of therapeutic gains (Gould, Otto & Pollack, 1995; Brown and Barlow, 1995), a significant proportion of patients relapse after they respond to CBT (Barlow et al, 200; Clark et al., 1994; Craske et al., 1991).

In pharmacotherapy trials, Selective Serotonin Reuptake Inhibitors (SSRI), Selective Norepinephrine Reuptake Inhibitors (SNRI), Tricyclic antidepressants (TCA), Mono-amine Oxidase Inhibiters (MAOIs), and benzodiazepines have all demonstrated efficacy for panic disorder. Current guidelines suggest that an SSRI should be used as a first pharmacological intervention, based on their lower side effect profiles when compared to TCAs and MAOIs and negligible dependency risk when compared to benzodiazepines (American Psychiatric Association, 2007). While about 70 percent of patients respond to medications (Nadiga, 2003; Ballenger, 1993; Toni et al., 2000), 25-91% of patients relapse after they discontinue pharmacotherapy (Barlow et al., 2000; Pollack & Otto, 1997; Wiborg & Dahl, 1996). Furthermore, for many patients, panic disorder becomes a chronic or recurrent illness (Pollack et al., 2000).

There are five variables that have been associated with poorer outcome in the literature: severity of panic disorder, the presence/severity of agoraphobia, comorbid depression, the presence of a personality disorder, and female gender (Pollack et al., 2000). In particular, severe levels of phobic avoidance have been repeatedly and consistently associated with poor prognosis, as these patients seem to suffer from the most intractable form of panic disorder. In a review of pharmacotherapy treatments for panic disorder, Slaap and den Boer concluded that pharmacotherapy is an inadequate treatment for patients with severe agoraphobia (Slap & den Boer, 2001). Pollack and Otto (1997) and Brown and Barlow (1995) both identify high levels of agoraphobia as a robust predictor of non-response. The presence of severe agoraphobia has also been identified as one of the most significant predictors of psychosocial impairment in patients with panic disorder (Hollifield et al., 1997). This group is more likely to suffer from co-

morbid Axis I disorders, tends to have earlier onset of symptoms, and has a more chronic, disabling long term course (Kessler et al., 1990; Bruce et al., 2005). Furthermore, since patients with agoraphobia are hard to recruit, they are often excluded from research studies (Haby, Donnelly & Corry, 2006). In this way, not only do these patients suffer from a form of the illness that causes greater psychosocial impairment, they also represent an understudied group. As such, it is important that we begin to understand both why severe levels of agoraphobia develop, and why these patients do not respond to efficacious interventions.

Theoretical Models of Panic Disorder:

Panic disorder is thought to stem from a diathesis of genetic, temperamental and environmental influences. In a biopsychosocial model, genetic studies have demonstrated that panic disorder is a heritable disease. First degree relatives are twenty-one times more likely to suffer from panic disorder than non-relatives, and they are more likely to suffer from panic disorder than other forms of anxiety disorders (Smoller & Tsuang; 1998; Fyer, 1995). Temperamental variables have been identified that predispose individuals to the development of anxiety disorders. "Neuroticism" is the adult temperament style most associated with the onset of anxiety disorders (Eysenck, 1967; Craske, 2001). Kagan also identified and described behavioral inhibition, a temperamental style in infancy characterized by aversion to novelty and exploration (Kagan, 1987). The presence of behavioral inhibition is highly correlated with later onset of anxiety disorders (Craske & Waters, 2005). Craske and Waters (2005) propose a "hierarchical model," in which the presence of neuroticism and behavioral inhibition

predispose an individual to developing an anxiety disorder.

Within this broad pathway to anxiety disorders, specific additional variables predict the onset of panic disorder. For example, emotional reactivity in early childhood is particularly associated with the later onset of panic disorder. Anxiety sensitivity in adulthood, defined as heightened fear of anxiety related sensations, also differentially predicts panic disorder from the other anxiety disorders. Certain parenting factors predispose children to the later development of anxiety disorders, including an overcontrolling parenting style and overinvolvement (Craske & Waters, 2005). Patients with panic disorder report a higher incidence of medical illnesses in childhood, particularly of a respiratory nature, than individuals who go on to develop other forms of anxiety disorders (Craske et al., 2001). In this way, diverse biological and environmental factors combine to create a susceptibility to developing panic disorder.

While there is general consensus in the field regarding factors that contribute to onset and aggravation of the illness, different theoretical models have developed out of an effort to refine our understanding of the etiology of panic disorder, and in an attempt to guide interventions. This section will review theoretical models behind the two first line interventions for panic disorder, pharmacotherapy and CBT. It will also review the psychodynamic model of panic disorder and agoraphobia that serves as the foundation of PFPP. PFPP is the treatment that will be the focus of this investigation and will be discussed in detail later in this chapter.

Neurobiological Models:

There are three major neurobiological models of panic disorder, although one does not preclude the other, and no model is definitive or conclusive. The suffocation alarm

model, first identified by Klein (Klein, 1993), posits that in panic disorder, the brain's fear circuits, located in the limbic system, are over-reactive. This hyperarousal is thought to produce secondary kindling in the area of the brainstem responsible for respiration, leading to the physical symptoms associated with panic disorder (Klein, 1993; Gorman et al., 2000). In this way, neurobiological reactivity in emotion centers of the brain creates and maintains the disorder.

The second model emphasizes the role of the pre-frontal cortex, the brain region responsible for the modulation of the fear circuit. In this model, the amygdala (the emotion center of the brain), the hippocampus (the memory center of the brain), and the pre-frontal cortex (executive functioning), interact in a feedback circuit that either inhibits or escalates the anxiety response. The pre-frontal cortex is responsible for inhibiting the amygdala. Interestingly, if the amygdala is over-active, the pre-frontal cortex is actually less able to exert control over the amygdala, creating a vicious circle. Thus, as the pre-frontal cortex underfunctions, it is unable to inhibit the amygdala, serving to maintain the arousal of the limbic system (Ninan & Dunlop, 2005; Rauch, Shin, & Wright, 2003). The neurobiological diathesis that maintains panic disorder is hypothesized as follows:

> If the baseline activity of the amygdala is set tonally high (from, for example, high anticipatory anxiety or temperament, the likelihood that another stimulus will trigger a panic attack increases. If the hippocampally mediated explicit memory is constantly triggered by conscious associations to the panic attack (including struggling hard to "forget" the experience), it increases the likelihood of another panic attack. If there is a history of behavioral inhibition in childhood, there may be a temperamental skewing toward avoidance (Ninan & Dunlop, 2005, p. 5).

In this way, a synergy is created in which pathways are laid down that become strengthened by each experience of anxiety.

The third model maintains that in patients with panic, anxiety states stimulate the activation of the limbic system. However, higher order centers of the brain are not recruited to modulate the anxiety reaction; for this reason, the anxious thought that triggered the attack remains outside of conscious awareness (Rauch, Shin, & Wright, 2003; Whalen et al., 1998). These different models of the pathophysiology of panic disorder suggest that the regions responsible for emotion/ fear responses are over-reactive, and the regions responsible for executive functioning and emotion regulation are under-active. The third model offers a rationale for panic being experienced as "out of the blue."

Psychotropic medications are thought to remediate the over-reactivity of the limbic system by dampening and modulating the responsiveness of this region (Gorman et al., 2000). As emotional reactivity becomes less intense, patients are able to experience greater control over their affective experience, and they are less likely to become overwhelmed.

Cognitive Behavioral Model:

In the cognitive behavioral model of panic disorder, anticipatory anxiety and phobic avoidance are thought to develop out of a "fear of fear", defined as a fear of panic attacks and their real or imagined consequences (Chambless & Gracely, 1989). More specifically, there are two predominant factors believed to contribute to the development and maintenance of this fear of fear. Interoceptive conditioning has been identified as an important process in the maintenance of panic disorder: after suffering from the unpleasant experience of having a panic attack, transient and normal bodily sensations become triggers for panic through a process of associative learning. Craske and Waters

(2005) explain, "…low-level somatic sensations of arousal or anxiety become conditional stimuli so that early components of the anxiety response come to elicit anxiety or panic" (p. 213). This process, in turn, is thought to attenuate the body's response to conditional stimuli, thereby increasing vulnerability to more panic attacks. Cognitive behavioral treatments for panic disorder employ interoceptive exposure paradigms, using the theoretical premise of interoceptive conditioning as the foundation for the interventions (Craske & Waters, 2005).

Equally important in the genesis of panic disorder, patients are also thought to suffer from "catastrophic misinterpretations" of events (Clark, 1986). In this conceptualization, normal bodily sensations are misinterpreted and ascribed with dangerous meanings. Perhaps most significant with respect to this formulation, misinterpretations may take place at a conscious or unconscious level. Echoing the neurobiological understanding of spontaneous panic attacks, Craske & Waters (2005) state "aversive emotional learning can occur without conscious representation of learning…and implicit emotional memories can activate amygdala-based fear systems without individuals being aware of the reasons" (p. 214). This aversive emotional learning that takes place outside of awareness is seen as the mechanism behind patients' experience of panic attacks coming "from out of the blue." In addition to fearing anxiety, Williams and colleagues demonstrated that these patients are also afraid of strong affects in general, due to their perceived inability to "control" the feelings (Williams et al., 1997). In this way, these patients are overly sensitive to normal body sensations, and they are also more prone to becoming overwhelmed by strong emotions. Cognitive restructuring is a technique that works to change patients' irrational thought patterns,

modifying the cognitions that generate catastrophic misinterpretations (Craske & Waters, 2005).

Both cognitive-behavioral and medication treatments attempt to enhance patients' capacities for emotion regulation. While pharmacotherapy likely achieves this aim by dampening the responsivity of the limbic system through its effect on serotonergic and noradrenergic synapses, the interventions in CBT attempt to enhance executive functioning through cognitive restructuring and mitigate the patient's reactivity through exposure paradigms.

Psychodynamic Model:

A psychodynamic formulation for the development of panic disorder:

The psychodynamic perspective on panic disorder also recognizes that panic disorder is typically triggered by a diathesis of physiological vulnerability and environmental factors (Busch et al., 1991; Shear et al., 1993; Milrod et al., 1997). While cognitive behavioral theory stresses the importance of interoceptive conditioning and catastrophic misinterpretation in creating the disorder, psychodynamic theory emphasizes the role of underlying psychological structures. In the psychodynamic model, various combinations of unconscious conflict, defensive style, and object relational disturbances create and sustain the disorder and contribute to its severity.

Freud (1895) first described the phenomenon of "anxiety neurosis" and the associated feature of "anxious expectation" (now called anticipatory anxiety). Freud theorized that anxiety neurosis develops from "an accumulation of excitation" (p. 107), likely a result of sexual conflict. He stated, "The mechanism of anxiety neurosis is to be looked for in a deflection of somatic sexual excitation from the psychical sphere, and in a

consequent abnormal employment of excitation" (p. 108). Certainly, from a contemporary perspective, Freud's emphasis on excessive excitation and sexual conflict seems limited in its scope. However, in many ways, Freud's early writings on anxiety neurosis set the foundation for later formulations regarding panic disorder. Freud's descriptions of accumulation of excitation reflect his early observations of affect dysregulation in these patients. Though he attributed this dysregulation to sexual arousal or frustration, he observed that individuals with anxiety neuroses were unable to modulate strong impulses. Instead of fully experiencing the impulse, allowing for its discharge, it was expressed through physical symptoms.

In *Inhibitions Symptoms and Anxiety,* Freud (1926) revised his understanding of anxiety, corresponding with his structural theory. In this work, Freud developed his notion of "signal anxiety," an adaptive mechanism that is a normal response to psychological danger. Small amounts of anxiety "signal" the ego to launch psychological defense mechanisms. If successful, traumatic levels of anxiety (i.e. panic-like experiences) are prevented. Signal anxiety allows the ego to unconsciously protect itself from the development of overwhelming affects. Symptoms are viewed as a compromise formation between an unacceptable wish and the defense against that wish (Freud, 1926; Milrod et al., 1997). In this way, Freud's early writings paved the way for the current psychodynamic understanding of the development of panic disorder, a model that continues to emphasize the role of intrapsychic conflict in the onset of panic symptoms (Milrod et al., 1997).

Panic disorder is thought to result from a failure of signal anxiety, a form of ego immaturity (Milrod et al., 1997; Busch et al., 1999). In panic disorder, signal anxiety

does not function, and instead, traumatic levels of anxiety flood the ego. Diamond (2004) explains, "In contrast to signal anxiety, which in Freud's view represents a potential danger that can be contained and symbolically represented, traumatic anxiety is experienced as a present danger that overwhelms the individuals' symbolic representational capacities" (pps. 285-286). The failure of signal anxiety is thought to stem from ego weakness, real trauma or cumulative trauma. Cumulative trauma results from exposure to repeated "micro" traumas, often a result of severe disturbances in the early relationship with the caregiver (Diamond, 2004). Without the adequate development of regulatory capacities in childhood, these individuals are more vulnerable to becoming overwhelmed by emotion, as the capacity for symbolization is easily flooded. This lack of mature ego development contributes to a highly charged atmosphere surrounding separation and autonomy, as the patient does not have the emotional resources to function independently.

Shear and colleagues (1993) suggest that constitutional factors interact with parenting style to create this type of disruption. In this integrative model, temperamental vulnerabilities like behavioral inhibition combine with early relationship disturbances in the mother-infant dyad to prevent the resolution of early developmental challenges, impede the full integration of the self representation, and predispose the child to the development of an avoidant defensive style. Shear and colleagues (1993) state:

> We hypothesize that inborn fear of unfamiliar situations, augmented by frightening, overcontrolling parental behaviors, predisposes to incomplete resolution of conflicts between dependence and independence … The manifestations of the dependency conflict may vary. Some panic-vulnerable individuals are sensitive to separation and overly reliant on others, but others are sensitive to suffocation and overly reliant on a sense of independence. In both instances, object relations are characterized by weak representations of self and powerful representations of other. Avoidance of the unfamiliar results in little opportunity for learning to predict threats accurately or for developing maximally adaptive defensive and coping strategies. Instead, defenses remain

> immature and focused on the problem of maintaining a tolerable distance (not too close and not too far) from overly powerful others (p. 862).

In this way, the infant's innate aversion to novelty interacts with his mother's limitations. Slade (2000) cautions against placing too much "blame" on the parent, however, stating, "Extremes of temperamental vulnerability, even in an essentially positive relationship, can derail the development of attachment security" (p. 1167). Even a mother with adequate emotional resources can become overwhelmed by a baby with a difficult temperament. Alternatively, the baby's temperament may be a bad fit for the mother, perhaps triggering her own unresolved anxieties; this type of temperamental mismatch provides one explanation for individuals who develop an anxiety disorder in spite of being raised in what seems like a "good enough" (Winnicott, 1965) parenting environment. However, in many cases, the mother's affective inattunement impedes the child's ability to learn to regulate and contain their internal emotional states. The mother's own difficulty handling separations communicates to the child that becoming more autonomous is too dangerous.

Milrod and colleagues (1997) add to this formulation, stressing the equally central role of disavowed anger, a difficult and dangerous affect for patients with panic:

> The child becomes angry at the parent's [perceived] rejecting and frightening behavior… [T]he child becomes fearful of loss and frightened that his or her angry fantasies will destroy the parent on whom he or she depends. In this vicious cycle, rage threatens the all-important tie to the parent and increases the child's fearful dependency. This process leads to further frustration and rage at the parent, whom the child views as the source of his inadequacies. (Milrod et al., 1997, p. 10)

In this cyclical process, the child reacts to real or imagined disappointment and abandonment with anger. However, because the child believes that the parent cannot tolerate his rage, he suppresses the affect and instead becomes more dependent on the

parent, a reaction to the fear of loss or retaliation that the rage stimulates. This defense against unconscious anger maintains the panic. Furthermore, parental intolerance of independence prevents the child from fully developing a separate, coherent sense of self, leading the child to feel incomplete without the primary object. Correspondingly, the child develops a sense of personal inadequacy and a corresponding belief that they would not be able to tolerate the loss of the object.

Unresolved conflicts from early childhood interact with the new challenges posed by the oedipal phase of development. The child's fear of being unable to survive a loss colors the way that later developmental tasks are handled, as the direct expression of normative anger against same-sex parents feels too dangerous. In adulthood, independence feels too threatening to the patient's connection to important objects. Regression to a more dependent position is one way to avoid facing developmental tasks that require greater autonomy (Milrod et al., 1997, Busch et al., 1999). Temperamental aversions to novelty reinforce this dynamic, and as a result, patients with panic often avoid exposing themselves to situations that require greater independence. Feelings of incompleteness and inadequacy heighten this sense of emotional dependence and maintain the reluctance to separate from attachment figures (Klass et al., 2008; Shear et al., 1993). Milrod and colleagues have also noted the role of interpersonal loss as a frequent precursor to panic onset (Milrod et al., 2001). In this way, the patient's fear that they will not be able to function without this object is both enacted and reinforced with the development of panic symptoms.

Unable to mobilize higher order defenses, these patients characteristically deny, displace, or project in order to avoid experiencing painful emotions (Rudden et al., 2008).

With such tremendous difficulty tolerating negative affects, it is easier to focus on the physical experience of panic symptoms, fostering somatization (Milrod et al., 1997). This focus on somatic experience may also engender secondary gain, as patients distract themselves from emotional exigencies with physical symptoms. In addition, developing a physical/emotional disability creates a real reliance on important objects (Busch et al., 1999). With this real need for increased care-taking, the patient is able to avoid the dangers associated with functioning autonomously. In this way, panic disorder can both represent a failure of defense and speak to a defensive process, as it guards the psyche from becoming aware of deeply disturbing emotional conflicts.

The context of the panic attacks and the symptoms themselves may also carry emotional significance. The cognitive behavioral literature emphasizes catastrophic misinterpretation of events in explaining the onset of panic symptoms. In this formulation, the symptoms (panic attacks, agoraphobia) are simply a consequence of a physiological and learned reaction. Milrod and colleagues agree that catastrophic misinterpretations contribute to the development of panic attacks, but they elaborate on this theory in asserting that the particular constellations of panic symptoms also relate to the internal dynamics of individual patients. They maintain that the panic symptom has a direct relationship to the patient's unconscious life that may be traced through the psychodynamic therapeutic process of free association and analysis of defenses (Milrod et al., 1997). Although the panic attacks by definition occur out of the blue (American Psychiatric Association, 2000), if the circumstances surrounding the attack are explored, including patient's associations to both the context and their particular physical symptoms, it is frequently possible to identify events or thoughts that preceded and

triggered the attack. In addition, patients associations to body sensations may reveal "body memories" or unconscious fantasies that psychologically connect to the physical experience (Milrod et al., 1997). However, due to the very unacceptable nature of these thoughts, patients with panic tend to repress them immediately or they are displaced, and expressed somatically in the form of a panic attack (Shear et al., 1993; Milrod et al., 1997).

A psychodynamic conceptualization for the development of agoraphobia:

The development of high levels of agoraphobia may represent a more pervasive form of psychopathology. Underlying ego weaknesses and object relational disturbances both create a vulnerability to becoming symptomatic and make recovery from the symptoms more difficult; a basic difficulty putting thoughts and feelings into words contributes to this challenge. Indeed, severe agoraphobia is associated with greater incidence of Axis II disorders and greater levels of pathology on personality measures (Shear et al., 2004, Chambless, 1985). The development of phobic avoidance is multidetermined, a result of the interaction between disavowed conflict and defensive style. Lewin writes that the phobic symptom represents a primary process distortion of internal states in the same way that the manifest content of a dream masks its latent content (Lewin, 1952). Agoraphobia may also represent an extreme version of the disconnect between physical symptoms and internal experience that is seen in patients with panic disorder. These patients are even more likely to use defenses like denial to ward off painful mental states. Avoidance has been described as a projection of unbearable internal experience onto benign situations (Lewin, 1952; Milrod, 2007).

Milrod (2007) describes this internal process: "The overt difficulty that these

patients experience in venturing out of their magically designated safe space in the real world, punctuated by overwhelming anxiety, parallels an inner, yet related difficulty they often have looking inward, reflecting on their lives or feelings, or even permitting themselves to experience their feelings at all" (p. 2). Milrod compares this limited capacity for reflection and insight to the impairments in reflective functioning associated with BPD. However, she states that "the way that agoraphobic patients avoid thought and reflection has a specific tenacious and phobic quality" (p.2). Lack of curiosity about symptoms may correspond with a lack of motivation for change. As long as the agoraphobic is able to maintain avoidance, as long as his restrictions are not challenged, he is often able to tolerate a profoundly circumscribed existence (Milrod, 2007). This aspect of the illness is perhaps at the core of its intractability; in order to respond to psychotherapy, the patient must engage in a process of reflection that will inevitably force him to experience the feelings he has built a life around avoiding. Not only do psychotherapeutic interventions often directly challenge the use of avoidant defenses, these patients may not have an adequately developed ego capacity or willingness to tolerate them.

Avoidance also serves an important function in relationships with important objects. Deutsch (1929) first wrote about the significance of the phobic companion, a person on whom the patient is reliant to enter situations. Deutsch observes that the fear of situations exists in the context of the relationship with this object. She states, "The impression we receive is that the anxiety of 'longing' is followed by feelings of hostility and indignation against the faithless love-object who has deserted and abandoned the subject; the anxiety on that object's behalf is a condensation of longing with its positive feeling-tone and the

reaction to the disappointment." (p. 53). In this way, avoidance represents a compromise, a symptomatic way of handling intolerable feelings. For example, Deutsch describes a twenty-year-old woman who became dependent on her mother to leave the house. An exploration of her history revealed that her father had been absent during her childhood; as her mother became more dependent on her daughter, the patient frequently slept in her bed. The patient also remembered feeling abandoned and petrified when her mother left the house. Her inability to leave the house on her own as an adult served several functions. First, by maintaining her child-like dependence on her mother, she was able to avoid fully parting with that extremely gratifying, though ambivalent, early experience. In addition, it reflected her difficulty tolerating her aggressive feelings towards her mother. Her rage at perceived abandonments could not be expressed directly because she simultaneously felt such dependence on her mother, the most important and perhaps exciting figure in her life. Deutsch suggests that the reliance on a phobic companion may reflect an unconscious act of aggression. Not only does the patient maintain a child-like stance, but it is often at the expense of the phobic companion's functioning, as the caregiver becomes controlled by the symptom. Both caregiver and patient become locked in a dysfunctional pattern, as they both feel controlled, enraged and desperate. In this way, Deutsch's theory emphasizes the way agoraphobia enacts an aggressive fantasy that cannot bear conscious expression (Deutsch, 1929; Milrod, 2007).

Early writers like Deutsch emphasized the oedipal aspects of the disorder, seeing the feared situation as representing displaced, unconscious fears of sexuality. However, in contemporary formulations, unresolved issues from early development seem most relevant in understanding the relationship between patient and phobic companion

(Frances & Dunn, 1975, Milrod, 2007; Rudden et al., 2008). Frances and Dunn (1975) see the dynamic between patient and phobic companion as an adult corollary to the separation-individuation process, stating, "…[T]he adult phobic … appears to re-enact the earlier drama of leaving and returning to mother and to safety, using the same spatial and motoric symbolization for separation" (p. 436). The infant expresses his desire for autonomy through exploratory behaviors and physical distancing from the mother. When the infant goes too far, or no longer feels safe, he returns to the mother, the secure base. For the agoraphobic patient, it is likely that mother was not able to provide that feeling of security, and Frances and Dunn view the phobic relationship as a continued attempt at resolving early developmental frustrations and disappointments. Oedipal anxieties are superimposed on these earlier conflicts.

This type of intense, merged relationship suggests that the patient never became psychically autonomous from the primary object. Self representations are not fully differentiated from object representations, impeding the patient's ability to function autonomously (Milrod, 2007). While reality testing is intact in these patients, this relative deficit in ego differentiation blurs the patient's ability to distinguish his own mind, feelings and intentions from the mind of others. Because the boundary between self and other is not clearly delineated, separation from the phobic companion can actually feel like a threat to the integrity of the self structure, triggering regression and panic. A threat to the relationship can also be experienced as a threat to the self. Conflict is displaced to the outside world, as the avoidance and preoccupying anxiety of situations overshadow and replace the experience of intolerable thoughts and affects (Diamond, 1985, Frances & Dunn, 1952, Milrod, 2007).

Milrod (2007) also suggests that severe agoraphobia partly stems from underlying ego weaknesses that limit the patient's capacity to symbolize feeling states. Milrod states, "While oedipal conflicts figure in the psychopathology of agoraphobia… core aspects of this disorder for many agoraphobics revolve around aspects of ego development as well, specifically involving lack of autonomous structures to the self-representation, and the relative ease with which it becomes threatened" (p. 12). In this way, the agoraphobic depends on the fused object to function as an auxiliary ego. If the patient does not have the ego resources to handle becoming autonomous, if the self-structure is unstable, giving up the avoidant posture may be too threatening. Unconsciously, relinquishing the symptom may feel much more disturbing than the limitations imposed by the symptom.

Mentalization and Reflective Functioning*:*

The research concept of Reflective Functioning (RF) may be useful in broadening our understanding of agoraphobia. Although the link between impairments in RF and Axis II disorders has begun to be articulated, research into the relationship between RF and Axis I disorders remains in its infancy. PFPP is the only psychoanalytic treatment in the empirical literature to demonstrate efficacy for an anxiety disorder. Hence, a study of PFPP offers a natural environment for a first investigation of the relationship between agoraphobia and RF. This section will offer a review of mentalization and RF.

<u>Mentalization: A review of the concept:</u>

Fonagy and colleagues (2002) define the construct of mentalization as "the process by which we realize that having a mind mediates our experience of the world.

Mentalization is intrinsically linked to the development of the self, to its gradually elaborated inner organization, and to its participation in human society, a network of human relationships with other beings who share this unique capacity" (Fonagy et al., 2002, p. 3). Mentalization theory integrates the developmental research on theory of mind with attachment theory and psychoanalytic concepts. Theory of mind is conceptualized as the capacity to understand the mind of another. The identification of this basic ability grew out of work with autistic patients, as one of the primary deficits in autism has been described as a gross inability to adopt another person's perspective (Baron-Cohen, Leslie, & Frith, 1985). With mentalization theory, Fonagy and colleagues expand on this basic premise to capture the full range of interpersonal relatedness. In addition to understanding that other people have separate minds, to be able to mentalize, one must also be able to imagine the emotional mind, appreciating that mental states are distinct and interpretable, and that they exist in a mutual relationship with behavior (Fonagy et al., 2002; Slade, 2005).

Slade (2005) describes the tremendous importance of this psychological capacity, stating, "the more that human beings are able to envision mental states in the self and the other (and thus what is internal to the self and particular to the other) the more likely they are to engage in productive, intimate, and sustaining relationships, to feel connected to others at a subjective level, but also to feel autonomous and of separate minds" (p. 271). As Slade illustrates, the capacity to mentalize serves several important functions. First, understanding mental states puts feelings into a context, allowing for greater control over emotional experience. In addition, seeing the affect as internally generated, rather than a concrete external force, facilitates self-regulation, leading to greater autonomy and

efficacy in highly charged situations. Furthermore, the ability to understand the mind of the other without feeling overwhelmed or engulfed makes a deeper sense of connection possible in interpersonal relationships. In this way, the mentalizing capacity allows for the clearer delineation of the boundaries between self and other while simultaneously enhancing the capacity for intimate relatedness.

Reflective Functioning: Theory and Empirical Findings:

In order to study this unique capacity, Fonagy and colleagues operationalized the construct of reflective functioning (RF), defined as the set of mental actions behind mentalization (Fonagy, Steele, Steele, et al., 1991). They developed the RF scoring system (Fonagy et al., 1998) for use with the AAI to measure mentalizing capacity. (See methods section for a description of the scoring system). Fonagy and colleagues demonstrated that a mother's capacity to reflect on her own parents is correlated with both her own attachment style and her child's attachment classification: mothers with high scores on the RF scale were significantly more likely to be classified as secure and were more likely to have children classified as secure (Fonagy, Steele, & Steele, 1991; Fonagy et al., 1995; Fonagy et al., 1998). Therefore, Fonagy and colleagues hypothesized that the intergenerational transmission of attachment status was mediated by the mother's capacity to reflect on the mind of her infant. They asserted that the mother's capacity to make meaning of her child's mental states plays a crucial role in her child's emotional development, for the infant learns to understand mental states by having his own mind reflected back to him by his mother (Winnicott, 1965; Fonagy et al., 2002). This process is an integral part of the child's growing feeling of security in the world, his development of a solid sense of self, and his capacity to feel control over his

emotional experience. In addition, the mother's capacity to reflect on her own history and feeling states allows her to cope with the difficult challenge of being a parent without becoming overwhelmed or disrupted by unresolved conflicts and emotions. Furthermore, the mother's capacity to reflect allows both her child's and her own behavior to feel predictable and meaningful (Fonagy et al., 2002).

Slade and colleagues (2005) have built on Fonagy's work to offer the first empirical confirmation of the hypothesis that RF mediates the transmission of attachment status between mother and infant. Slade and colleagues adapted the RF scoring system for use with the Parent Development Interview (PDI), a semi-structured interview that, unlike the AAI, directly assesses the mother's parental representation of her child (Slade et al., 2004; Slade et al., 2004a). Using the PDI, Slade demonstrated in a sample of 40 mothers and their babies that maternal reflective functioning is significantly related to infant attachment status. Slade's results support the idea that the relationship between adult attachment and infant attachment is mediated by maternal reflective functioning (Slade et al., 2005). Slade (2005) states, "the centrality of the parent as mediator, reflector, interpreter, and moderator of the child's mind cannot be overemphasized" (p. 273). In this way, the mother's ability to transmit both attachment security and the capacity for RF to her child sets the foundation for healthy socio-emotional development.

<u>The link between mentalization, self development and affect regulation</u>:

As Slade has demonstrated, mentalization develops in the context of the relationship with one's primary caregiver (Slade, 2005), and it is seen as fundamental in both self development and self-regulation (Fonagy et al., 2002; Fonagy & Target, 2005). As Fonagy and colleagues have empirically illustrated, there is a great range in the degree

to which individuals are capable of mentalizing (Fonagy et al., 1991). This spectrum results, at least partly, from individual differences in the early dyadic relationship between mother and infant. Difficulties in the early attachment relationship impede the smooth development of mentalization, and these disruptions adversely affect both the developing self and the developing capacity for object relations (Fonagy et al., 1991; Slade et al., 2005; Fonagy & Target, 2006).

In normal development, the caregiver's attunement creates a beginning awareness in the infant that he has a separate self that is capable of exerting an influence on other people. This process starts on a behavioral level, as the infant consolidates a physical self, learning to communicate his needs for physical comfort. The infant then begins to develop a rudimentary emotional self, learning to recognize the mother's mirroring of his emotions as a reflection of something that comes from within (Fonagy & Target, 2006). This process is communicated through gaze patterns between mother and infant. Fonagy and colleagues (2002) speak to the importance of *"high-but-imperfect contingencies"* (Fonagy et al., 2002, p. 167) in the way that the mother mirrors her infant's facial expressions. Optimally, the mother's mirroring is not an exact copy of the child's expression. Instead, she slightly modifies and elaborates her reflection of the emotion, transposing it from one sensory modality to another, setting the foundation for the later development of symbolization. This mirroring with "markedness" (Bateman & Fonagy, 2004, p. 66) both communicates that the mother understands and empathizes with her child's emotion and teaches the child to recognize that the affect is internally generated. Fonagy and colleagues (2002) describe the process of internalization of affect representations, stating, "Anxiety, for example, is for the infant a confusing mixture of

physiological changes, ideas, and behaviors. When the mother reflects, or mirrors, the child's anxiety, this perception organizes the child's experience, and he now knows what he is feeling. The mother's representation of the infant's affect is represented by the child and is mapped onto the representation of its self-state" (p. 35). This organization of different self states allows the child to feel that mental states are both knowable and containable. These self states eventually consolidate into a coherent sense of self.

Problematic gaze patterns and troubled patterns of emotional attunement set the foundation for later difficulties in mentalization. For example, if the mother literally reflects the emotion without marking it, the affect is experienced as originating in the mother, not the infant (Fonagy et al., 2002). Both direct reflection and inaccurate reflection prevent the child from feeling understood and communicates a sense that emotions are frightening. Bateman and Fonagy (2004) state, "If the caregiver mirrors the baby's emotions inaccurately or neglects to perform this function at all, the baby's feelings will be unlabeled, confusing and experienced as unsymbolized and therefore hard to regulate" (p. 68). If the mother is unable to appropriately mirror her child's affects, the child is deprived of the important feeling of being known, and this disturbance works against self-object differentiation. Disruptions in early gaze patterns both prevent the child from being soothed by his mother and impede his ability to learn to soothe himself. Slade (2002) states:

> Indeed, one of the aspects of a sense of security is experiencing oneself…as *regulatable*, or *containable*. It is awareness that one is safe with one's feelings, needs, and desires, that these are at once acknowledged and known, and at the same time held and modulated. It is the chronic feeling of being unknown, obliterated, or dysregulated that creates a feeling of danger, insecurity, or falseness and unreality (p. 2).

Early derailments in these gaze patterns typically precede continued misattunements in the developing relationship, predisposing the child to a myriad of later complications.

Fonagy and Bateman (2006) describe the profound emotional consequences of disturbances in the early attachment relationship, stating:

> …dysfunctional attachment relationships not only are the consequence of the difficulty in holding a stable and consistent representation of others' and one's own mind in mind, but also cause developmental distortions in self organization …we are proposing that a constitutionally vulnerable individual who experiences developmental trauma becomes psychologically vulnerable in later attachment contexts as a result of instability of the self. In an attempt to cope, the individual decouples the mind from others' minds and relies on earlier psychological mechanisms to organize the experience and in doing so reveals fragments of the self (p. 414)

Derailments in mentalization begin when the mother is unable to scaffold the child in the earliest stages of self development. In addition, parents who cannot facilitate the development of mentalization in their children are often themselves victims of childhood trauma and frequently expose their child to trauma, abuse or volatile environments. As a result, the child is both deprived of an important psychological resource and faced with a greater emotional burden. The child comes to feel that knowing either his own mind or the mind of his caregiver is intolerable, turning away from reflection as it is too threatening. In this way, deficits in mentalization can represent both a developmental failure and a defense against unbearable feelings.

This type of disturbance in mentalization further impedes emotional development, as the presence of an agentive, mentalizing self is fundamental in the growing capacity for increasingly sophisticated types of affect regulation. In explaining the connection between mentalization and affect regulation, Fonagy and Target (2006) explain, "…affect regulation is a prelude to mentalization; yet, once mentalization occurs, the nature of affect regulation is transformed: not only does it allow adjustment of affect states, but more fundamentally it is used to regulate the self…the child's capacity to create a coherent image of mind depends on an experience of being perceived as a mind by the

attachment figure" (p. 554). The infant's capacity to self soothe matures into the ability both to keep a coherent sense of self in spite of external impingements and to use this stability in the service of emotional regulation.

Fonagy and Target (2006) maintain that not only does mentalization promote better self regulation, but the arousal and dysregulation created by activation of the attachment system actually serve to inhibit mentalization. In a state of arousal, proximity seeking, or attachment distress, a child does not have the emotional space to engage in either understanding the contents of his own mind or trying to make sense of the world. Securely attached children are able to explore, learn, imagine and experience themselves freely in the context of a safe relationship. They are not consumed with trying to make sense of an unpredictable parent. Insecurely attached children, however, exist in a more chronic state of hyperarousal, forced to devote greater emotional resources to inefficient attempts at self-regulation. As a result, they do not develop the resources to reflect on or make meaning of reality (Fonagy & Target, 2005; Fonagy & Target, 2006). In this way, the development of mentalization plays a central role in the consolidation of the self, a crucial psychic structure in both identity development and affect regulation. In optimal development, mentalization is a skill that allows for greater life satisfaction and more effective coping in times of stress. Conversely, individuals with deficits in mentalization are both deprived of truly intimate experience and vulnerable to a host of emotional and interpersonal consequences.

<u>RF and psychiatric difficulties in adulthood</u>:

As derailments in the development of mentalization are thought to impede psychological development, establishing the empirical link between RF and emotional

functioning is particularly important. Since attachment insecurity is correlated with psychiatric, relationship and adjustment problems in adulthood (Fonagy, 1996), it is likely that deficits in RF lead to similar consequences. Indeed, impairments in RF are highly correlated with a range of psychiatric difficulties, Borderline Personality Disorder (BPD), in particular. For example, in Fonagy and colleagues' study of 82 inpatients, patients with a diagnosis of BPD were significantly more likely to have low RF scores than average or above average RF scores (Fonagy et al., 1996; Fonagy et al., 1998). To explain this association, Bateman and Fonagy (2004) theorize that individuals with BPD suffer from the "defensive inhibition of mentalization" (p. 93). They state, "Patients with BPD will defensively avoid thinking about the mental states of self and others, as these experiences have led them to experiences of unbearable pain…" (p. 92). In this complex process, patients with BPD learn to shut off their thinking brain as a way of surviving, as "not knowing" seems the best defense.

Slade (2005) describes how parental psychopathology is transmitted to the child:

> Disturbed and abusive parents obliterate their children's experience with their own rage, hatred, fear and malevolence…Sharing their mind with the caregiver becomes dangerous, rather than a rich opportunity for self-knowledge and emotional containment…the child experiences his inner life as barren and unknowable…such feelings of alienation and isolation become fundamental to a fragmented and empty sense of self, and to the failure to develop sustaining and nurturing relationships with others (273).

The defense that ensures psychic survival in childhood leaves the traumatized adult with pervasive psychological deficits, including a fragmented sense of self and profound feelings of emptiness. Bateman & Fonagy (2004) speak to the behavioral manifestations of these impairments: "Individuals whose capacity for mentalization is not well-developed may need to use controlling and manipulative strategies to restore coherence to their sense of self" (p. 90). Mentalization is protective in that it facilitates self regulation;

in individuals who have not developed a strong enough capacity for mentalization, stress is more destabilizing. In this way, the defensive inhibition of mentalization, while adaptive in the face of abuse, creates an ego weakness, leaving patients with BPD with poorer coping strategies and more prone to emotional lability and behavioral acting out. Without being able to reflect on their experience, without being able to use mentalization to regulate the intensity of their affect, patients with impairments in RF frequently rely on action as an expression of internal states.

Conversely, RF has also been shown to serve as a protective factor in individuals who are exposed to violence or abuse. Fonagy and colleagues determined that individuals with an abuse history who had low RF were significantly more likely to suffer from BPD than those who were abused but did not have low RF (Fonagy et al., 1996). In this way, if RF is intact, it is an ego resource that works against the later onset of trauma related emotional problems.

RF as a mechanism of change:

Transference Focused Psychotherapy:

Given the documented relationship between impairments in RF and the presence of psychopathology, research has begun to investigate whether interventions that aim to directly enhance RF exert a mutative effect on psychological symptoms. Preliminary findings indicate that improvements in RF may serve as a mechanism of change in certain types of psychotherapy. For example, Transference Focused Psychotherapy (TFP) is a manualized, psychodynamic psychotherapy built on Kernberg's object relations framework of BPD. In a study of TFP, ninety patients with BPD were randomly assigned to TFP, Dialectical Behavior Therapy (DBT), a cognitively based intervention, or

Modified Supportive Psychodynamic Psychotherapy, a treatment that is based on psychoanalytic principles but does not make use of the transference interpretation. In the TFP group, one year of intensive treatment significantly increased RF, and there was a significant increase in the number of patients classified as securely attached at treatment termination (Levy et al., 2006). These changes were not found in either the DBT or the supportive psychotherapy treatment conditions.

Levy and colleagues distinguish between different types of change in psychotherapy, stating that improvements in RF after TFP may be linked to underlying personality change. Therefore, they propose that "changes in RF and narrative coherence are akin to rehabilitative changes in the internal structures of representations of self and other that will provide patients with buffers against internal and external stressors" (p. 1037). Levy and colleagues suggest that because TFP enhances RF, it may provide for more enduring changes. Levy and colleagues (2006) describe what they believe to be the process of change in TFP:

> As the patient progresses during the course of TFP moving from split-off contradictory self-states to increased reflectiveness and integration, from impulsive action to active reflection, the patient develops better behavioral control. Over time, increased differentiation and integration is theorized to allow patients with BPD to think more flexibly and benevolently about the mental states … of their therapists, significant others (e.g. attachment figures), and themselves (p. 1030).

According to this model, as the patient begins to experience his own mind in the context of a benign therapist, fragmented self states become more integrated and RF improves. As the patient becomes more reflective, growing awareness of the role of mental states fosters a greater sense of agency, allows for greater impulse control, and enriches the capacity for intimate relationships. In this way, a year-long course of TFP has been shown to exert a measurable influence on borderline patients' ability to reflect on

themselves and other people. While TFP has not demonstrated efficacy in treating BPD, it has been shown to decrease suicidality, anger, and impulsivity in borderline patients (Clarkin, Levy, Lenzenweger et al., 2007). Levy and colleagues suggest that it will be important to assess the relationship between RF and measures of psychopathology in future research (Levy et al., 2006).

Panic Focused Psychodynamic Psychotherapy: RF and Panic Specific Reflective Functioning (PSRF):

Rudden and colleagues (2006) conducted a pilot study to investigate RF as a measure of therapeutic change in a randomized controlled clinical trial of Panic Focused Psychodynamic Psychotherapy (PFPP) vs. Applied Relaxation Therapy (ART) for patients with panic disorder with or without agoraphobia. PFPP employs psychoanalytic techniques to explore the conflicts and defenses surrounding the patient's panic attacks (PFPP will be discussed in more detail later in this chapter). In a sub-sample sample of twenty-six patients, Rudden and colleagues assessed levels of RF and PSRF at baseline and study termination. The authors concluded that RF was not characteristically impaired in this sample of patients who participated in the PFPP study. In addition, PSRF scores at baseline were significantly lower than RF scores at baseline; while panic disorder patients were typically able to think about important relationships, their ability to make meaning of their symptoms was impaired. Patients who completed PFPP evidenced a significant improvement in PSRF at the end of treatment. Interestingly, PSRF significantly decreased in the ART sample. The results from this pilot study raise the question of whether or not PSRF, the ability to reflect on one's panic attacks and anxiety symptoms, may be the mediating mechanism that accounts for improvement in PFPP. Formal mediation analyses were not done in this study; however, the authors are

currently conducting a mediation study of PSRF in an ongoing study of PFPP vs. ART vs. CBT. In explaining their findings, Rudden and colleagues (submitted) suggest that "…patients in PFPP developed a greater capacity for reflection on their underlying emotional conflicts, possibly through internalization of their therapists' method of understanding, or through the treatment's active interpretive focus on the underlying significance of panic experience" (p. 11). In this way, PFPP likely enhances PSRF through the exploration of panic symptoms both in terms of their unconscious determinants and the function they play in warding off conflict in the patient's emotional life.

A proposed relationship between Reflective Functioning and agoraphobia:

This project hypothesizes that RF may be particularly relevant in furthering our understanding of panic disorder with agoraphobia. Rudden and colleagues (submitted) distinguish between patients who "evidence a global kind of 'not knowing' about their inner lives" and patients who "are quite perceptive about their own mental states and those of others, with the exception of the inner conflicts that precipitate their symptoms" (p. 10). In this way, panic symptoms may develop from different types of processes: for the patient whose reflective abilities are largely intact, circumscribed areas of conflict may overwhelm the capacity, limiting the patient's ability to think about the meaning of his panic attacks. For these patients, Rudden and colleagues view RF as "a synthetic ego capacity" in which RF is inhibited in particular conflict areas in individuals who are otherwise capable of mentalizing (Rudden et al., 2008). It is also possible that individuals who are temperamentally prone to developing an avoidant defensive style are

more likely to rely on defenses like “not knowing” as the primary way of coping with conflict. This avoidant style may work reasonably well under ordinary circumstances, but with the advent of overwhelming situational stressors, this defense no longer serves a protective function; helping this type of patient to make meaning of panic symptoms might provide a more efficient regulatory strategy.

Patients who have global limitations in RF might be more susceptible to becoming agoraphobic. The smooth development of mentalization is seen as fundamental in both the capacity for self regulation and the development of the self representation (Fonagy et al., 2002; Fonagy & Target, 2006). In patients with severe levels of phobic avoidance, these processes are thought to be disrupted (Milrod, 2007; Frances & Dunn, 1975). In this way, it is possible that severe avoidant symptoms may speak to greater ego deficits that have impaired and forestalled the development of the mentalizing capacity. Perhaps patients who develop severe levels of avoidance project internal states onto external situations out of a fundamental inability to engage with their emotional lives (Milrod, 2007). If this were the case, without the ability to know their own minds, without the experience of an agentive self, these patients would be left feeling like they were not in control of their emotions. Fonagy and Target (2006) maintain that when the attachment system is chronically activated, mentalizing processes are inhibited. This inability to control affective experience might be transformed into patients’ concern that they will “lose control” or do something impulsive in the midst of an attack. If patients with severe avoidance are unable to see mental states as containable, they would be more likely to disavow them or express feelings through physical symptoms or to project them onto concrete external situations.

The conflict and ambivalence over separation and autonomy seen in patients with severe levels of phobic avoidance has a direct theoretical relationship to RF. It may be that the more patients' identities remain fused and blurred with the object on whom they depend, the greater the likelihood of corresponding limitations in patients' ability to identify and make meaning of the contents of their own mind and the mind of the other. As panic disorder is associated with frightening and controlling parenting behaviors (Craske & Waters, 2005), and anxiety disorders have been empirically linked to attachment insecurity in childhood (Fonagy et al., 1996), it is possible that patients who develop severe levels of phobic avoidance suffered from some form of early disturbance in their primary relationships. Fonagy and colleagues (2002) describe the types of maternal misattunement that impair the child's ability to recognize his own feeling states. Patients who develop agoraphobia often have mothers with difficulty tolerating separations, who are preoccupied with their own emotional dependency. Frequently impinged on by the emotional needs of the caregiver, unable to develop an independent sense of self, these patients may not have had the freedom to fully explore their own needs, feelings, intentions and desires. Instead, they may have been more likely to confuse the feeling states of important objects with their own feelings or to shut off their reflecting brain as they feel incomplete without the object. Unable to see mental states as internal and transient, they instead displace powerful emotions onto concrete situations. In this way, they are unable to distinguish internal experience from external reality. The internal feelings of emptiness that result from a lifetime of not feeling known or knowable may be at the core of severe agoraphobia. The symptom of phobic avoidance is not easily ameliorated as it helps maintain the fragile stability of the self structure

(Milrod, 2007). A better understanding of the relationship between RF and agoraphobia may be useful in tailoring interventions for this group and in understanding what is mutative in psychotherapy.

Panic Focused Psychodynamic Psychotherapy

Panic Focused Psychodynamic Psychotherapy (PFPP) is a compelling alternative to cognitive behavioral therapy and medication treatment, offering a different perspective from which to understand the way patients with agoraphobia engage in psychotherapy. PFPP is a manualized psychotherapy for panic disorder based on psychoanalytic principles. It has demonstrated efficacy for the treatment of panic disorder. This is the first time that efficacy has been established for a psychoanalytic treatment of an anxiety disorder (Milrod et al., 2001; Milrod et al., 2007). PFPP is a twenty-four session, twice-weekly treatment that emphasizes the emotional exploration of panic symptoms. PFPP operates under the basic psychoanalytic assumption that unconscious conflicts play an important role in generating and maintaining panic attacks. Articulating and working through core conflicts help the patient to understand the emotional meanings of panic symptoms. Facing and tolerating the emotional significance of the symptom afford the patient greater control over emotional experience. PFPP addresses phobic avoidance by helping patients to experience and understand underlying emotions (conflicts over becoming autonomous, rage at attachment figures) that have been displaced onto external situations which ultimately feed panic symptomatology. The therapist provides a framework for connecting behavioral avoidance with internal mental states and encourages exploration of disavowed aggression. PFPP uses the transference relationship

to illustrate the way that conflicts manifest themselves in multiple situations, and the exploration of the transference works to pinpoint patients' ambivalence surrounding independence.

By reducing the intensity of core conflicts and enhancing affect tolerance, PFPP empowers the patient to begin to function more independently. Through the termination process in this brief treatment, patients experience their separation anxiety directly with the therapist; by helping the patient to verbally explore and tolerate this experience, PFPP also affords patients an enhanced capacity to manage future separations from important objects. Improvement of panic symptoms in PFPP may result from internalization of the benevolent therapist, the reduction of the intensity of unconscious conflict, and the enhanced capacity for tolerating affective experience (Milrod et al., 1998; Milrod et al., 2007). (For an in depth description of PFPP, refer to Milrod and colleagues' *Manual of Panic Focused Psychodynamic Psychotherapy*).

The PFPP manual was developed based on the authors' clinical experiences with over forty cases of panic disorder. Although these patients were not studied systematically in a controlled research setting, 85 percent of this group's panic disorder remitted without medication (Busch et al., 1996; Milrod et al., 1997). In order to formally study this manual, an open trial of twenty-one patients treated with PFPP was conducted. In the open trial, seventy-six percent of patients who participated in the study (16/21) and ninety-four percent of patients who completed the study (16/17) met "response" criteria after treatment. Furthermore, this study evidenced low attrition rates, as only four patients dropped out. All four of these patients had tapered off of benzodiazepines in order to gain study entry. Patients in this pilot study had statistically

significant improvements in levels of panic severity, phobic avoidance, general anxiety and depression (Milrod et al., 2001).

Building on these findings, Milrod and colleagues conducted the first randomized controlled trial of PFPP, comparing it to Applied Relaxation Therapy (ART). ART is a psychotherapy with demonstrated efficacy for panic disorder. However, it has been shown to be less effective than CBT (Craske, Brown, & Barlow, 1991; Ost & Westling, 1995). The results of the RCT demonstrated efficacy for PFPP for panic disorder when compared to ART. In this study, patients treated with PFPP improved significantly more in terms of decreasing the frequency of panic attacks, levels of avoidance and psychosocial functioning (Milrod et al., 2007). A two-site study of PFPP vs. ART vs. CBT is currently underway to assess whether PFPP has comparable efficacy to CBT. Milrod and colleagues assessed for comorbid personality disorders in this sample. Personality disorders are associated with poorer prognosis in first line interventions (Pollack et al., 2000). Patients with panic disorder and comorbid Cluster C (the anxious cluster) personality disorders responded better to PFPP than ART than those with panic disorder without comorbid cluster C disorders, an unprecedented finding in psychiatric research. This suggests that Cluster C personality disorders moderate response to PFPP, though it was not possible to disentangle cluster C from Axis II findings in this sample due to the small sample size.

In explaining these findings, Milrod and colleagues (2007) postulate, “Clinically, the differential treatment results are unsurprising, as PFPP addresses aspects of panic disorder patients’ passivity and childlike dependence through exploration and articulation of transference fantasies, facilitating more adult behavior. By contrast, therapist-guided

exposure protocols do not specifically address these functional or characterological issues" (p. 889). In this way, this preliminary investigation suggests that patients with personality pathology may be able to use PFPP effectively in beginning to change maladaptive patterns, allowing for greater symptom reduction.

The interventions in PFPP may work to enhance PSRF in particular. In explaining the process of change in PFPP, Rudden and colleagues (submitted) postulate, "Through the treatment, patients' tendency to "not know" about the conflicted inner states connected with their internal experience of danger and the resulting panic attack is seen to change, as reflected in their more complex articulated awareness of their inner mental states." PFPP's emphasis on understanding and tolerating mental states may improve RF. By enhancing the capacity to reflect on and contain internal experience, PFPP may actually work to strengthen reflective capacity, rendering patients less susceptible to emotional flooding. In addition, by reducing the level of conflict surrounding separation and autonomy and helping patients to create a language with which to express emotional symptoms, this treatment may work to help patients begin to identify and consolidate the contents of their own mind, perhaps allowing for greater affect tolerance. For this reason, this enhanced capacity for RF, particularly in thinking about one's panic attacks, might be one mechanism that contributes to treatment gains in PFPP.

Summary, aims and hypotheses:

This study will investigate the relationship between agoraphobia and RF and PSRF. Agoraphobia is associated with poorer response to efficacious treatments. The lens of RF offers another angle from which to understand this syndrome, potentially expanding our

knowledge of phobic avoidance. The development of mentalization theory and the corresponding research construct of reflective functioning have begun to clarify both our understanding of Axis II pathology and the process by which attachment disorders are communicated from mother to infant. Disruptions in the development of mentalization are thought to impede the full development of the self representation and interfere with the child's growing capacity for affect regulation. While the association between RF and character pathology is beginning to be articulated, investigations into the relationship between RF and Axis I disorders are just beginning. This examination will offer a beginning step in determining whether patients with severe levels of phobic avoidance suffer from impairments in RF and PSRF. This study will also examine whether impairments in PSRF exert a differential impact on treatment response. PFPP has been shown to enhance PSRF. It is possible that baseline impairments in PSRF may predict a poorer response to non-psychodynamic interventions but that PFPP, in its aim of enhancing PSRF, may be able to effectively treat patients with these limitations.

Aim 1:

To examine the strength of the relationship between reflective functioning and severity of agoraphobia.

Hypothesis 1:

1. A negative linear relationship exists between RF and severity of agoraphobia in which lower capacity for RF will correlate with greater severity of agoraphobia, as measured by item #4 on the panic disorder severity scale (PDSS).

2. A negative linear relationship exists between PSRF and severity of agoraphobia in which lower PSRF will correlate with greater severity of agoraphobia.

3. PSRF will be more impaired than RF in patients with severe agoraphobia.

Aim 2:

To examine whether PSRF at baseline moderates response to PFPP and ART.

Hypothesis 2:

1. Baseline impairments in PSRF will predict a poorer response in terms of panic disorder symptoms, as measured by PDSS total score, after ART but not PFPP.

2. Baseline impairments in PSRF will predict a poorer response in terms of agoraphobia symptoms, as measured by item #4 on the PDSS, after ART but not PFPP.

CHAPTER 3: METHODS

This study will examine data collected as part of a larger, National Institute of Mental Health (NIMH) funded parent study, "A randomized controlled trial of psychodynamic treatment for panic disorder," (Grant # NIMH K 23 MH001849) conducted by principal investigator Barbara Milrod, MD. This study will also include data collected as part of a sub-study that included patients enrolled in Milrod's study. The sub-study was conducted by principle investigator Marie Rudden, MD and funded by the American Psychoanalytic Association (APsA) Fund for Psychoanalytic Research. The sub-study was titled "Reflective Functioning Before and After Panic-Focused Psychodynamic Psychotherapy and Applied Relaxation Training." All data was collected at the Weill Medical College of Cornell University between 2000 and 2004. All data collection was approved by the Weill Medical College IRB.

Sample:

Inclusion Criteria:

Subjects were included in the parent study if they were ages 18-60, diagnosed with primary DSM-IV panic disorder with or without agoraphobia on the Anxiety Disorders Interview Schedule for DSM-IV Lifetime Version (ADIS-IV) (Dinardo, Brown, & Barlow, 1995). Subjects were given diagnostic severity ratings on the ADIS, with a range of 0-8. In order to meet inclusion criteria for the study, subjects had to receive a panic disorder severity of at least 5. Subjects who were on psychotropic medications at study entry were allowed to continue taking these medications if they agreed to maintain a stable dose throughout their participation in the study. Study psychiatrists prescribed and monitored medications. Subjects were required to discontinue any prior ongoing

psychotherapy in order to participate.

Exclusion Criteria:

Subjects were excluded from the parent study if they met criteria for psychosis, bipolar disorder or active substance abuse or dependence (6 months remission necessary).

Subjects:

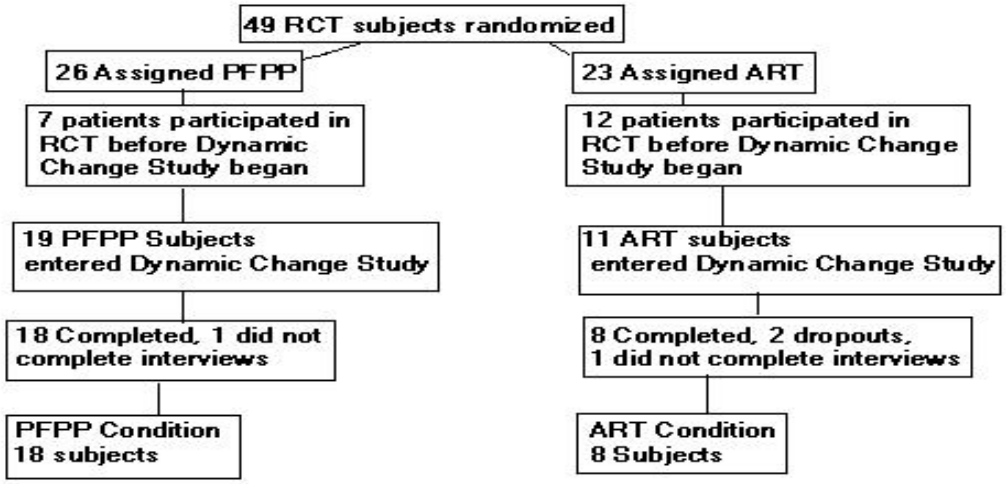
All subjects signed written, informed consent. 49 patients entered the parent study. Participants had a mean age of 33 (S.D = 9.6) years. Seventy-one percent of subjects were Caucasian, twenty-seven percent African American, eighteen percent Hispanic, and two percent Asian**.** Subjects in the parent study were randomly assigned to the two treatment conditions, PFPP and ART. Randomization used a computer algorithm that stratified patients according to two criteria: whether or not they met DSM-IV criteria for comorbid major depression and whether they were taking psychotropic medications. Subjects were stratified for comorbid major depression, as it has shown to be associated with poorer prognosis (Noyes, et al., 1991). Subjects were stratified for whether or not they presented on stable psychotropic medications to control for potential therapeutic differences resulting from effects of medication across the two treatment groups. Nineteen percent of the patients in the PFPP cell (N=5) and twenty-six percent of patients in the ART treatment condition (N=6) met criteria for comorbid major depression. Nineteen percent of patients in the PFPP group (N = 5) and seventeen percent of the ART patients (N = 4) were on psychotropic medications during their participation in the study.

Subjects with comorbid major depression, personality disorders, and severe agoraphobia were included. This represents a departure from many previous panic disorder studies. As a result, this sample is likely more symptomatic than many

previously described samples. For this reason, it is a sample that is more generalizable and better reflects the true range of individuals suffering from panic disorder in the population (Milrod et al., 2007).

Rudden et al's sub-study began after the RCT was in progress for two years. 19 patients had already entered treatment in the parent study and were not assessed in the RF sub-study. As a result, a smaller N =30 completed the RF study. The following diagram, (Courtesy Rudden et al., in preparation) outlines the flow of patients between the parent study and the sub-study:

Research Subjects Flow Chart (Rudden et al., in preparation):



Of the 30 subjects in the RF study, 19 patients were assigned to PFPP and 11 to ART. The participants in the agoraphobia/RF study are the thirty subjects who participated in both the RF study and the parent study.

Setting:

The study was carried out in the following locations:

1. New York Presbyterian Hospital-Weill Cornell Medical College; 525 E. 68th Street; New York, NY 10021.

2. Private offices of study therapist located throughout New York City.

All research assessments took place at New York Presbyterian Hospital- Weill-Cornell Medical College.

Procedures:

Assessments:

Subjects with primary DSM-IV panic disorder with or without agoraphobia were recruited through IRB approved advertisements in local newspapers, IRB approved fliers posted at New York Hospital, and physician referrals. Interested subjects completed a preliminary telephone screening. The screening consisted of questions related to the individual's current symptoms and functioning. Subjects who seemed appropriate for the study after the initial screening were invited to participate in an evaluation.

Independent raters who were blind to treatment condition completed all study assessments. The ADIS-IV-L was administered during the evaluation, providing panic disorder and agoraphobia diagnosis and severity ratings. In order to monitor ongoing panic and anxiety symptoms, participants were given a daily panic attack diary and asked to record their symptoms for three weeks before beginning therapy and throughout the duration of the treatment. In the parent study, assessments were completed at baseline, at treatment termination, and at two, four, six and twelve months after treatment

termination. As part of a battery of scales, the Panic Disorder Severity Scale (PDSS), a measure of panic disorder symptom severity and the primary outcome measure of the parent study, was completed at each assessment point. In accordance with Rudden et al.'s protocol, RF and PSRF interviews were collected at baseline and at treatment termination.

Training of Independent Raters:

All evaluations and assessments were conducted by master's level diagnosticians with at least 35 hours of training on the ADIS-IV-L and at least 12 hours of training on symptom measures. Diagnosticians also received training on the RF and PSRF interview by Dr. Rudden, and administration of the RF and PSRF interview was monitored by ongoing supervision throughout the study.

Therapies:

Subjects were treated in twice weekly sessions of either ART or PFPP for 24-sessions. All treatment sessions were videotaped and therapist adherence was monitored.

PFPP:

Panic Focused Psychodynamic therapy is a manualized psychotherapy developed by Barbara Milrod and colleagues (Milrod et al., 1997). The following represents a brief summary of PFPP. A more detailed explanation of the treatment can be found in Milrod et al's *Manual of Panic Focused Psychodynamic Psychotherapy* (Milrod et al., 1997). The treatment consists of three phases: the number of sessions allotted to different phases of treatment varies from patient to patient.

Phase I: Acute Panic:

This treatment operates under the assumption that panic symptoms are at least

partly related to patients' emotional conflicts, both conscious and unconscious. During the evaluation phase and beginning sessions of the treatment, the therapy focuses on exploring the emotional and situational context preceding the onset of panic disorder. The therapist works to understand the individual meanings of both panic symptoms and the circumstances surrounding panic episodes. The therapist then begins to apply a psychodynamic formulation to the case, identifying and articulating psychological conflicts and connecting them to panic symptoms. Frequent emotional conflicts found in panic disorder patients include mixed feelings surrounding separation and autonomy, difficulty experiencing and expressing anger, and sexual conflict. Phase I of PFPP generally results in patients reporting diminished panic and agoraphobia symptoms.

Phase II: Panic Vulnerability:

In this phase of treatment, the therapist works toward deepening patients' understandings of their central unconscious dynamics as they connect to panic. This is accomplished by "working through," a period of recognizing these conflicts as they present in multiple situations. The therapist begins to interpret the transference, demonstrating that central conflicts manifest themselves in the therapeutic relationship. Phase II tends to afford patients a greater range of emotional experience, and as a result, they may become less vulnerable to relapse of panic symptoms.

Phase III: Termination:

Of particular importance for separation sensitive panic patients, the termination of therapy must be addressed by the therapist for at least the final third of the treatment. Transference feelings are heightened because of the imminent separation. This lends intensity to the transference, facilitating the re-experiencing of conflicted rage and fear

and conflicts over being more autonomous. Patients become empowered with an enhanced ability to cope with separations and a newfound capacity to experience anger directly as an outgrowth of the termination phase. A possible worsening of symptoms can occur during this phase (Milrod et al., 1997.)

ART:

The first three sessions of Applied Relaxation Therapy are psychoeducational. The therapist explains the rationale for the treatment and gives the patient a framework for understanding panic disorder. Treatment emphasizes progressive muscle relaxation techniques and exposure, using relaxation as an active coping strategy. Progressive muscle relaxation training consists of tensing particular muscle groups for 5-10 seconds and then learning how to relax the muscles. The patient learns to alternate between muscle tension and relaxation, and the therapist works to help the patient deepen muscle relaxation. The therapist begins by focusing on sixteen muscle groups. The number of groups is reduced to four. Next, the therapist works with the patient on discrimination, generalization, relaxation by recall and cue–controlled relaxation. Patients are instructed to practice relaxation techniques at home. By week six, patients begin practicing relaxation skills in anxiety provoking situations. Patients are taught to recognize beginning sensations of anxiety in order to help cope with the anxiety before it escalates. Patients are encouraged to practice relaxation throughout the day to promote generalization of the techniques. Homework assignments are assigned daily, including an *in vivo* exposure protocol.

<u>Therapists:</u>

PFPP:

8 PFPP therapists treated subjects in the study. All PFPP therapists carried degrees of either M.D. or PhD. All therapists had at least two years of experience treating panic disorder with psychodynamic psychotherapy and at least three years of psychoanalytic training. The mean level of clinical experience in the PFPP group was 21 years (range: 2-40 years; s.d: 8.6 years). Therapist training for the study consisted of a twelve hour course in PFPP and the completion of one pilot case that was videotaped and supervised.

ART:

6 ART therapists treated subjects in the study. ART therapists were matched for level of training and experience with PFPP therapists: therapists carried degrees of either M.D. or Ph.D. All therapists had at least two years of experience treating panic disorder with ART and CBT. The mean level of clinical experience in the ART group was 16 years (range: 5-35 years; s.d.: 11.3 years). Training in ART consisted of a six hour course and the completion of one pilot case that was videotaped and supervised.

Therapist supervision:

Therapists in both treatment conditions participated in monthly group supervision sessions and were given regular individual supervision.

Adherence:

Therapists in both treatment conditions were monitored for adherence to the protocol by independent adherence raters. Three videotapes were rated for adherence to each treatment. All therapists achieved satisfactory adherence to the protocol in each treatment condition. Adherence to PFPP was measured by the Panic-Focused Psychodynamic Psychotherapy Adherence Scale (See appendix F). Satisfactory adherence was a score of four out of six on at least five of the seven items. Four

independent raters achieved reliability in rating adherence for PFPP. The mean interrater intraclass correlation was .92 (N=50). The average level of adherence was 5.5 in PFPP.

Adherence to ART was measured by the Applied Relaxation Training Adherence Scale (unpublished instrument of Otto and Pollack, as amended by Michael Schwalberg, PhD. See Appendix F). Satisfactory adherence was defined as a score of at least 5 out of 7 on all three items of the scale. Experienced raters from Boston University conducted the adherence monitoring for ART. The average level of adherence among the ART therapists was 6.2 out of 7.

Measures:

1. The Reflective Functioning Interview:

The Reflective Functioning scoring system (Fonagy et al., 1998) was initially developed for use with the Adult Attachment Interview (AAI) (Main & Goldwyn, 1994; Main & Goldwyn, 1995). The AAI consists of sixteen questions that inquire about the subject's early relationship with his or her early caregivers. The interview inquires about experiences of separations and reunions and asks the individual to explain reasons why his or her parents behaved the way that they did. It also asks them to think about the way that the relationship has changed over time. The Reflective Functioning interview (Rudden, 2006) is adapted from the AAI. Peter Fonagy, Mary Target and colleagues identified a set of questions in the full AAI that are thought to "demand" reflection. These "demand" questions are emphasized in the scoring of RF on the AAI. Rudden's abbreviated, semi-structured interview is comprised of these demand questions (Fonagy et al., 1998). Rudden and colleagues' adaptation of the full AAI was made in an attempt to incorporate RF evaluations into the rubric of contemporary psychiatric outcome

research, as patients enrolled in such studies already have a burden of several hours of assessment at study entry, the administration of the entire AAI would have been prohibitively lengthy. Rudden and colleagues were interested in using the RF demand questions to assess the patient's ability to reflect on mental states in themselves and in other people; as a result, the administration of the entire AAI was not necessary to meet this aim. Rudden and colleagues piloted this adaptation as part of the sub-study. (See Appendix A for interview.) Unlike the full AAI in which subjects are asked to reflect on their relationships with both parents, the RF interview instructs subjects to describe only one parent.

Scoring RF on the Reflective Functioning Interview:

Fonagy et al's (1998) RF scoring system was originally developed for use with the AAI. However, they discuss the scale's potential application to other sources of narrative data (Fonagy et al., 1993). The RF scale is scored on range of -1 to 9. A score of -1 represents a total repudiation of reflection with bizarre and distorted interpretations of events and mental states. Scores falling in the range of 1 to 3 reflect either a lack of reflection or a concrete, limited capacity for making meaning of underlying mental states and motivations. A score of 5 describes average reflective functioning, in which a subject clearly demonstrates the capacity to connect mental states to behaviors. Scores ranging from 6 to 8 represent above- average or superior or "marked" capacity to reflect on and understand intentional mental states in self and others. A score of 9 is defined as full or exceptional RF in which the subject offers a complex, nuanced, vivid and elaborated account of his own and his parent's mental states and perspective and makes room for conflict.

2. Panic Specific Reflective Functioning Interview:

The PSRF Interview is designed to assess subjects' capacities to reflect on and make meaning of their panic attacks, (Rudden, 2006). The interview was designed to be administered as a complement to the abbreviated RF interview. It consists of three questions that invite subjects to reflect on why they have panic attacks and the types of feelings and circumstances that trigger panic (See Appendix B). In this way, the interview assesses a continuum ranging from individuals who present a bizarre interpretation of symptoms to a physiologically based, one dimensional understanding of panic attacks to subjects who are able to connect their experiences of panic to aspects of their emotional lives (Rudden, 2004).

Scoring Panic Specific Reflective Functioning (PSRF) on the Panic Specific Reflective Functioning Interview:

Rudden et al. (2004) developed the PSRF scoring system as a counterpart to Fonagy et al's RF scale. It is scored on the same -1 to 9 scale. On the PSRF scale, a -1 is given if the subject offers a bizarre, distorted, or hostile rationale for his or her symptoms. A score of 5 is considered an average capacity to grasp emotional meanings of panic; this score is applied when the interviewee clearly demonstrates some understanding of the relationship between symptoms and psychological experience. A score of 9 is reserved for exceptional PSRF. This score is rarely applied, and the patient would have to demonstrate an unusual and extraordinary degree of nuance and sophistication in his or her understanding of the relationship between panic symptoms and emotional experience. Achieving this score may not be possible while the patient is still symptomatic (See Appendix C for scoring guide.)

Training in RF scoring:

Before scoring the abbreviated interviews, Rudden was trained in RF scoring by Mary Target, one of the authors of the RF scale: she achieved moderate reliability (Shrout & Fleiss, 1979) for scoring RF on the AAI (ICC of .68, Spearmen Brown's two way mixed effect model). Rudden scored all RF and PSRF interviews. Rudden was blind to patient identity, treatment condition and treatment phase (pre/post). Milrod completed RF training and rated 30% of the interviews to monitor inter-rater reliability. Rudden and Milrod had excellent reliability (Shrout & Fleiss, 1979), with an ICC of .74 for RF and .86 for PSRF, (Spearman Brown two-way mixed effects model).

3. Panic Disorder Severity Scale:

The Panic Disorder Severity Scale, the primary outcome measure in the parent study, is a rater-administered, reliable, validated, composite rating of panic severity, consisting of seven items scored from 1 to 4 (Shear et al., 1997). This instrument assesses panic frequency, upset during panic attacks, extent of anticipatory anxiety, severity of agoraphobic anxiety and situation avoidance, avoidance and fear of body sensations, clinical interference in occupational functioning, and impairment in social functioning. This is the only standardized measure of overall panic disorder severity. Inter-rater reliability was excellent, with ICC of .87 for 24 independently rated assessments and .88 for 24 separate pairs assessments. Cronbach's alpha for pretreatment PDSS scores on 186 patients with panic disorder was .65. This measure has demonstrated both convergent and discriminant validity with other panic and anxiety assessment tools (Shear et al., 1997.)

The PDSS will be used for three purposes in this project: 1. It will be the measure of baseline severity of agoraphobia, using item #4, the item that assesses severity of

agoraphobic anxiety and situation avoidance. 2. Response of panic disorder symptom severity to psychotherapy will be determined by the change in PDSS (change score = PDSS pre-treatment – PDSS post-treatment. 3. Response of agoraphobic severity to psychotherapy will be determined by the change in item # 4 of the PDSS. (Change in agoraphobic severity score = Item #4 on the PDSS pre-treatment – Item # 4 on the PDSS post treatment).

Data Analysis Plan:

A Pearson correlation will be used to examine the strength of the relationship between RF at baseline and severity of agoraphobia and to examine the strength of the relationship between PSRF at baseline and severity of agoraphobia, as measured by the rating on item #4 of the PDSS. The bivariate plots will be examined for each correlation, and if there are outliers, a Spearman Rank Correlation will be used instead of a Pearson correlation. The relationship between RF and PSRF will be determined using a test of correlated correlations. A Fisher's r to z transformation will be performed.

Multiple linear regression analyses will be used to test the main effect of PSRF and treatment condition on change in panic disorder severity and the main effect of PSRF and treatment condition on change in agoraphobia severity. The incremental contribution of the interaction between PSRF and treatment condition will also be examined in both cases.

CHAPTER 4: QUANTITATIVE RESULTS

Sample Characteristics:

Of the thirty subjects included in this study, seven (21.2 %) were men and twenty-three (69.7%) were women. The subjects had a mean age of 33.53 years (SD = 9.26). 72.7 % were Caucasian, 3 % African American, 12.1 % Hispanic, and 1% were of mixed or other race.

At baseline, by DSM-IV criteria, assessed using the ADIS-IV-L, 8 subjects met criteria for panic disorder without agoraphobia (17%) and 22 subjects met criteria for panic disorder with agoraphobia (73%). Seventeen patients were randomized to PFPP and nine patients were randomized to ART. 4 patients included in this sample dropped out of the protocol prior to randomization. Therefore, baseline data will look at the sample of thirty patients, but outcome data will only include the 26 patients who were randomized.

Based on the ADIS-IV-L, there was a mean panic disorder severity of 5.67 (SD = .80), a mean number of comorbid Axis I disorders of 1.7 (S.D= 1.57), and a mean panic duration of 17 months (SD = 29.40). Four subjects met criteria for comorbid major depression and fourteen patients met criteria for an Axis II disorder (according to DSM-IV criteria assessed using the SCID-II). The breakdown of Axis II disorders is as follows: Cluster A: N=0, Cluster B: N=1 Cluster C: N=7. Based on the SCID-II, eight patients met criteria for more than one personality disorder.

This sample of thirty subjects has been used to assess the relationship between RF, PSRF and severity of agoraphobia. As four patients dropped out of the study before they were randomized to a treatment condition, a smaller sample of twenty-six patients has

been used for the moderator analyses. A breakdown of the above variables by treatment group is listed in Table 1 below:

TABLE 1. Demographic and Clinical Characteristics by Treatment (N=26):

Variable	Panic Focused Psychodynamic Psychotherapy (N =17)		Applied Relaxation Training (N = 9)	
	Mean	SD	Mean	SD
Age at entry (Years)	34.24	9.6	32.44	9.44
Severity of Panic Disorder: (Range: 1-8)	5.65	.86	5.67	.87
Comorbid Axis I disorders	1.47	1.18	1.44	1.43
Panic Duration (months)	10.05	10.75	14.24	23.92
Gender (male)	4		3	
Comorbid Major Depression	2		1	
Axis II diagnoses	9		2	

Correlational Analyses:

Relationship between Reflective Functioning and severity of agoraphobia:

A Pearson correlation was conducted to determine the strength of the relationship between baseline Reflective Functioning (RF) and severity of agoraphobia. Baseline RF was measured by the Reflective Functioning Interview. A dimensional view of baseline severity of agoraphobia was measured by item # four on the Panic Disorder Severity Scale (PDSS). Table 2 offers a summary of RF and agoraphobia scores at baseline.

Table 2: Baseline Sample Characteristics - RF (N=30):

Variable	Mean	Median	SD
Reflective Functioning: (Range: -1-9)	5.05	5.0	.93
Severity of Agoraphobia: (Range 0-4)	2.0	2.0	.94

Based on the distribution of the two samples, a Pearson correlation was deemed an appropriate test for determining the correlation between the two variables. The relationship between RF and severity of agoraphobia was not significant (r =.192, p <.309). The findings are summarized in Table 3:

Table 3: Correlational analyses of RF and Severity of Agoraphobia at Baseline:

N=30	Severity of Agoraphobia	
	r	p (two-tailed)
Reflective Functioning	1.92	.309

It was hypothesized that patients with greater levels of agoraphobia would have corresponding impairments in their reflective capacities. Contrary to this hypothesis, these findings suggest that patients who suffer from greater levels of phobic avoidance do *not* have greater difficulty understanding mental states than patients who suffer from panic disorder but are not avoidant.

Relationship between Panic Specific Reflective Functioning and Severity of Agoraphobia:

A Pearson correlation was conducted to determine the strength of the relationship between baseline Panic Specific Reflective Functioning (PSRF) and baseline severity of agoraphobia. Baseline PSRF was measured by the Panic Specific Reflective Functioning Interview. Dimensional baseline severity of agoraphobia was measured by item #4 on the PDSS. Table 4 offers a summary of RF and agoraphobia scores at baseline:

Table 4: Baseline Sample Characteristics –PSRF (N=30):

Variable	Mean	Median	SD
Panic Specific Reflective Functioning: (Range: -1-9)	4.3	4.5	.866
Severity of Agoraphobia: (Range 0-4)	2.06	2.0	.94

Based on the distribution of the two samples, a Pearson correlation was deemed an appropriate test for determining the correlation between the two variables. The relationship between baseline RF and baseline agoraphobia was not significant ($r = .192$; $p < .309$). The findings are summarized in Table 5:

Table 5: Correlational Analyses of PSRF and Severity of Agoraphobia at baseline:

N=30	Severity of Agoraphobia	
	r	p (two-tailed)
Reflective Functioning	1.92	.309

This test was conducted to determine whether or not patients with greater severity of agoraphobia would have corresponding impairments in their ability to understand and make meaning of their panic attacks. Contrary to the proposed hypothesis, these findings suggest that patients who suffer from greater levels of phobic avoidance do *not* have greater difficulty understanding their panic attacks as measured by PSRF than patients who suffer from panic disorder but are not avoidant.

Comparison of correlations:

It was predicted that PSRF would be more impaired than RF in patients with severe agoraphobia. In other words, patients with severe levels of phobic avoidance would have more difficulty making meaning of their panic attacks than understanding mental states in

the context of their attachment relationships. In order to test this hypothesis, a test of correlated correlations was performed. Using a Fisher's Z transformation, it was determined that the correlations are not significantly different (see Table 6).

Table 6: Comparison of Correlations:

N=30

Z	t	P
-1.97	-1.87	.853

Patients in this sample with phobic avoidance do not have greater difficulty understanding their panic symptoms than understanding mental states. This finding is in contrast to Rudden et al's (2006) finding that patients with panic disorder have greater impairments in baseline PSRF than in baseline RF. It is unclear what these differences mean, as they may reflect on methodological differences between the two studies.

Based on these three sets of analyses, these findings suggest that within the panic disorder population in this small sub-study, severity of agoraphobia did not bear a significant relationship to the patients' mentalizing capacities. The frequency distribution of RF and PSRF in patients with severe agoraphobia suggests that further empirical testing is warranted in a larger sample to determine whether these findings are meaningful (see Table 7).

Table Seven: distribution of RF and PSRF scores in Severe agoraphobia*

**Severe agoraphobia is defined as a 3 or 4 on item #4 of the PDSS*

N=10	
RF (Range: 4-7):	N
Below Average (4):	3
Average (5):	2
Above Average (6):	3
Marked (7):	2
PSRF (Range 4-6):	
Below Average (4):	4
Average (5):	5
Above Average (6):	1

Axis II comorbidity and RF:

Given the high degree of Axis II comorbidity in this sample, it is difficult to tease apart the unique relationships between Axis I and Axis II pathology to RF. In this sample, the majority of personality disorders were in Cluster C. The distribution of RF scores by Axis II Cluster is presented in table 8 below:

Table 8: SCID-II Axis II Comorbidity and Reflective Functioning (N=30)*:

	Cluster C** (n=7)		Cluster B** (n=1)		No Axis II disorder: (n=16)	
	RF	PSRF	RF	PSRF	RF	PSRF
Mean	5.28	4.21	6	4.5	5.03	4.5
S.D.	1.11	.7	0	0	.74	.69
Range:	4-7	3-5	0	0	4-7	3-6

****** Cluster A includes Paranoid, Schizoid and Schizotypal PD; Cluster B includes Antisocial, Borderline, Histrionic and Narcissistic PD; Cluster C includes Avoidant, Dependent and Obsessive Compulsive PD (six patients had overlapping cluster B and C diagnoses and were excluded from these analyses.)

No patients in this sample were diagnosed with a Cluster A personality disorder (paranoid, schizoid, schizotypal disorders). As only one patient in this sample suffered from a Cluster B alone, it is difficult to clearly assess the differential impact of the separate clusters. According to this distribution, the mean RF score for patients with no comorbid Axis II disorder was average. Patients with Cluster C ("Anxious" Cluster) disorders also had average RF scores. It may be that patients with primary panic disorder and comorbid Cluster C personality disorders do not have the associated deficits in RF that have been identified in patients with primary Cluster B disorders (Fonagy et al., 1995). Interestingly, the one patient in this sample with a Cluster B disorder had above average RF. This study differs from past studies in that all subjects had primary Axis I panic disorder, presumably a major difference between this sample and those of Fonagy et al's.

PSRF AS A MODERATOR OF OUTCOME:

Moderator analyses were conducted on a sub-sample of 26 patients. This sub-sample is smaller than the original sample of 30 patients because 4 patients dropped out prior to randomization to treatment. PSRF at baseline was the proposed moderator variable. Moderators are defined as "a baseline or pre-randomization characteristic that can be shown to have an interactive effect with treatment on the outcome" (Kraemer et al., 2002, pg. 879). It was hypothesized that baseline PSRF would exert a differential impact on response, with patients with low PSRF showing a better response to PFPP than ART. Response was defined by a 40% reduction in the PDSS between treatment start and treatment termination, as per Multicenter panic disorder criteria (Barlow et al., 2000). In Rudden et al.'s study (2006), change in panic symptom severity as measured by the

PDSS was not significantly related to change in PSRF within either the ART or the PFPP group. However, it was hypothesized that impairments in PSRF might predict poorer outcome in ART but not PFPP.

Sub-sample characteristics**:**

Clinical Characteristics:

At baseline, RF scores had a mean of 5.05 and a median of 5 (S.D. = .93.) As Rudden and colleagues (2006) demonstrated, RF was not impaired in this sample. However, the sample did contain a continuum of RF, with scores ranging from 3 to 7. PSRF scores had a mean of 4.31 (S.D = .87), median of 4.5 (S.D = .87), and a range of 2.5 to 6. Rudden and colleagues (2006) found that PSRF was significantly lower than RF in this sample (p. = .002).

At baseline, subjects had both mean and median total PDSS scores of 13 (SD = 4.06), with scores ranging from 5 to 19, reflecting a continuum of panic disorder severity in this sample. At termination, the mean and median PDSS total was 5 (S.D=3.35), with a range of zero to thirteen. The mean PDSS change score was 7.9 and the median PDSS change score was 7.5 (SD= 5.56). Change scores ranged from zero to seventeen across both treatments [see Table 9].

At baseline, on item #4 of the PDSS, subjects had mean agoraphobia severity scores of 2.07 (moderate severity) and median agoraphobia severity scores of 2 (moderate severity) [S.D = .94]. Scores ranged from 0 (absent) to 4 (very severe), spanning the entire range of the agoraphobic spectrum. At termination, subjects were found to have a mean agoraphobia severity score of .85 (mild) and a median agoraphobic severity score of 1.0 (mild) [S.D = .78]. Termination agoraphobic severity scores ranged from 0

(absent) to 3 (severe). The mean change score was 1.19 and the median was 1.9 with a range of 0 to 3, again suggesting a range in level of improvement across the sample. These findings are summarized in table 9 below:

Table 9: Clinical Characteristics of sub-sample (N=26):

Variable	Mean	Median	Range	SD
Reflective Functioning:	5.05	5	3-7	.93
Panic Specific Reflective Functioning:	4.31	4.5	2.5-6	.87
Baseline PDSS score:	13	13	5-19	4.06
Termination PDSS score	5	5	0-13	3.35
PDSS CHANGE score: (Baseline PDSS-Termination PDSS)	7.9	7.5	0-17	5.56
Baseline Agoraphobia Severity:	2.07	2	0-4	.94
Termination Agoraphobia Severity	.85	1.0	0-3	.78
Agoraphobia CHANGE scores:	1.19	1.9	0-3	.90

Potential confounds:

Potential confounds were examined to ensure that no significant baseline differences in the PFPP vs. ART groups confounded the analyses.

Demographic variables:

There were no between-group differences in gender (Pearson chi square = .66, p=.42) ethnicity (chi-square = 1.66, p=.65), marital status (chi square = 2.8, p=.37), number of children (chi square = .18, p =.67), years of education (chi-square =3.87, p =.14), or employment (chi square = .73, p =.39) (Rudden et al., in preparation).

Clinical Variables:

There were no between-group differences in severity of panic disorder on the PDSS (two-tailed Mann-Whitney U =75.5; p =.953), the presence of co-morbid depression

(Fisher exact =.777), other Axis I disorders (Fisher exact =.773), Axis II diagnoses (Fisher exact =.773), and duration of panic disorder (two-tailed Mann-Whitney U=76; p =.979).

Moderator analyses:

Baseline PSRF and panic disorder severity at termination:

Linear regression was conducted to examine the differential impact of baseline PSRF on PFPP and ART in terms of the level of change on the PDSS. The findings are summarized in Table 10 below:

Table 10: PSRF as a hypothesized moderator predicting change in PDSS severity by treatment condition (N=26):

	B	*SEB*	β^2	***Sig.****	R^2
Main Effects:					
Baseline PSRF	-.944	1.272	-.143.	.465	
Treatment Condition	4.205	2.203	.367	.035**	
Interaction					
Baseline PSRF x Treatment Condition	-.536	2.805	-.217	.850	.152

*Two-tailed

**Significant at P< .05 (one-tailed)

The findings suggest that baseline PSRF does not moderate treatment response in terms of panic disorder severity. Neither the interaction between PSRF and treatment condition nor the main effect of baseline PSRF were significant. However, mirroring Milrod and colleagues' (2007) findings in the larger sample of forty-nine patients, assignment to PFPP significantly predicted better outcome than assignment to ART (p<.05, one-tailed). Panic disorder patients' superior response to PFPP over ART does not appear to relate to baseline PSRF scores.

Baseline PSRF and agoraphobic severity:

Linear regression was conducted to examine the differential impact of baseline PSRF on PFPP and ART in terms of the level change in agoraphobic severity. The findings are summarized in table 11 below:

Table 11: PSRF as a hypothesized moderator predicting change in agoraphobic severity by treatment condition (N=26):

	B	*SEB*	β^2	***Sig.****	R^2
Main Effects:					
Baseline PSRF	-.291	.179	.273	.059**	
Treatment Condition	.951	.310	.515	.005	
Interaction					
Baseline PSRF x Treatment Condition	.335	.388	.842	.397	.374

* (Two-tailed)

** Significant at the .01 level

The findings suggest that baseline PSRF does not moderate treatment response, as the interaction between baseline PSRF and treatment condition does not significantly predict change in agoraphobic severity. However, assignment to PFPP significantly predicts greater reduction in agoraphobic severity than assignment to ART ($p<.01$, two-tailed). In outcome trials, patients with agoraphobia have consistently demonstrated poorer outcome (Brown & Barlow, 1995; Kessler et al., 2006; Noyes et al., 1990; Pollack & Otto, 1997; Slap & den Boer, 2001). The finding that PFPP significantly predicts reduction in phobic avoidance is important and warrants further attention. This is the first time a psychodynamic treatment has empirically demonstrated superior ability to treat agoraphobic symptoms.

CHAPTER 5: A CASE DISCUSSION

As no literature has systematically examined the treatment process in psychodynamic psychotherapy for agoraphobia, the following case discussion will present an illustration of a successful PFPP treatment. This patient began treatment with an agoraphobic severity level of 4 ("very severe"). At study termination, her avoidance was rated a 1, in the "mild" range, a significant reduction in agoraphobic severity. Her baseline PDSS (overall panic severity) was 18 (range 0-28), and her termination PDSS score was 4, a 78% reduction in panic severity**.** This treatment was part of the sample of patients included in the present project. The discussion of this treatment will be drawn from a review of videotaped treatment sessions in addition to a previously published discussion of this case (Rudden et al., 2008.) At baseline, this patient received an RF score of 7 and a PSRF score of 6. At termination, her RF score remained a 7 and her PSRF had increased, also receiving a score of 7.

Phase I: Acute Panic:

Ms. A[1] is a married, 40 year old, Latin American accountant and mother of two who suffers from panic disorder with agoraphobia. She is an only child. Her parents divorced at age five. Her father was alcoholic and abusive when intoxicated. Her mother was devoted and attentive, but worked nights to support her daughter, often sleeping through the day, and suffering from bouts of severe depression. Ms. A continued to have contact with her father throughout her childhood, but his appearances were erratic and unpredictable.

Ms. A's mother died of a sudden heart attack when Ms. A was in her twenties. She

[1] All identifying information has been changed to preserve the confidentiality of the patient.

initially described her mother as a “perfect, sweet, gorgeous woman”, contrasting this image with her “funny and clever, but sad and angry” father. She described “always chasing that feeling I had with my mother. Loving you that much, knowing you, being safe. I’m slipping further away from being my mother’s daughter.”

In the initial sessions, the therapist elicited detailed descriptions of Ms. A’s panic attacks. Ms. A described her first panic attack that occurred during her junior year of college: she was sitting on an airplane, on the tarmac, delayed, on her way home to visit her mother. Two “big, drunk” men came into her row. Feeling “closed in and out of control,” she suffered her first attack. Although the therapist encouraged her to think more about this attack, it felt inexplicable and irrational to Ms. A. However, this first panic attack that occurred in anticipation of reunion with her most important attachment figure provides an initial window into her conflictual relationship and conflicted attachment style.

As she began to feel more comfortable and curious, she remembered a panic attack that also occurred during college, while under the influence of marijuana. Stoned and disoriented, she reported hallucinating. In this vision, she saw her mother “in a chair. She was crying. I wanted to say something to make her stop crying. I was aware, but unable to speak or say anything.” This image triggered an intense panic attack. Although substance-induced, this panic attack provided a window into the relational context of her panic. Its exploration allowed Ms. A to begin to think about her own reactions to her mother’s struggle with depression. While Ms. A initially described her mother as perfect, she began to appreciate the more difficult aspects of their relationship. Although Ms. A idealized and respected her mother, her mother’s depression also left her feeling ashamed

and alienated. On the one hand, mother worked nights, toiling through grueling shifts to send Ms. A to Catholic school. Grateful for her sacrifice, Ms. A also felt acutely, painfully different from the rest of her white, non-Latino classmates. In this context, she described an iconic image of her mother picking her up from school in her nightgown. While her mother was devoted to taking care of her, she was also unable to understand how humiliating this was for Ms. A. Ms. A's embarrassment about her mother triggered further feelings of guilt and shame. How could she be so ungrateful when her mother had sacrificed everything for her? Her unilaterally merciful stance towards her mother made it impossible for her to tolerate any of her disappointment with her, or her angry feelings.

These early sessions highlight Ms. A's central conflicts: on the one hand, as a child, Ms. A felt safe, loved and nurtured by her mother. On the other hand, her mother often disappeared into her depression, becoming self-absorbed and unavailable. In this state, she was unable to understand Ms. A or to protect her from her unpredictable and violent father. The therapist presented this conflict to Ms. A as being directly connected to her experience of panic. These two panic attacks – her inchoate image of being unable to protect her mother, and that of being unable to protect herself from the "big, drunk men" (like her father) become the central organizing foundation of her treatment.

By session five, Ms. A reported that her panic attacks were lessening, attributing it to "being more aware." As she became less symptomatic, she began to voice a different set of concerns: she said, "I worry who am I going to be if I don't worry so much about covering up? I have to focus to not disappear." Her poignant statement highlights the complicated nature of change for many highly-preoccupied panic patients. Although Ms. A was suffering and reviled her panic, her anxiety also served an important

function for her. Her anxiety had heretofore played a central role in her determination of her identity and her sense of her own competence. The idea of change was destabilizing and threatened to disturb her tenuously maintained sense of self.

Ms. A began to describe the incredible efforts she had made to hide her "true self". In attending an all-white catholic school, she said, "I just felt wrong. I didn't really exist because I was so off from everyone else, completely disconnected. It felt sad and lonely. Any time I felt those feelings, I would try to do something to cover it up, but I would vacuum up my great qualities at the same time. It was hard work not to disappear and not to fall apart." She began to feel that revealing her true self was too dangerous – to the children at school, and to her mother, who had sacrificed so much to send her there.

Ms. A recognized the huge cost of her anxiety, but the idea of removing the protective varnish of her panic was terrifying. She said, "The last time I was a truly honest, full person, I was four. I don't know who there is once this stuff is gone." She felt she had ignored her true self as a means of survival, but she began to realize that she would not be able to lead a full, satisfying life without delving into what underlay her experience of anxiety.

By session six, the therapist offered her a more sophisticated formulation for her panic: abandoned by her father and often ashamed of her mother, she developed a sense of her self as the "poor little Latina girl." This particular representation became associated with her feelings of closeness with her mother. Her first panic attack occurred during a developmental period in which she was moving towards autonomy. On the tarmac, her conflict over whether to embrace or move away from this idea of herself

overwhelmed her: how could she become an independent adult and maintain her connection to her mother? Further, being independent meant facing her highly conflicted feelings about her own sexuality. The presence of these large men likely triggered unconscious associations to her overstimulating exposure to sexual scenes in her father's house. However, these oedipal layers may not be addressed in a 24 session treatment, as early conflicts need to be worked through first.

Phase II: Panic Vulnerability:

As the treatment progressed, Ms. A began to enact her wish to be a child in the room with her therapist. As she sank into her chair, retreating into loose clothing, speaking in a smaller voice, the therapist consistently pointed out to her that she was acting like a little girl. He gently encouraged her to understand why this position had been so important to her and to think about trusting herself in becoming more adult for the first time.

Even though Ms. A's panic attacks had abated, the therapist continued to connect seemingly unrelated content to her experience of panic, weaving it into an organizing central formulation. For example, Ms. A complained that she had a mouse in her apartment. In addition to feeling terrified of the mouse, she said she also felt "yucky and poor and out of control." The therapist related this to her experience in Catholic grade school. The mouse was framed as a provocation of her victimized feelings: the mouse both represented her view of herself as helpless and triggered unconscious associations to feeling out of control when inappropriately exposed to her father's sexuality. Like her panic attacks, the mouse seemed further proof of her unconscious fantasy that she was still a child with no recourse, as she perceived that she could not prevent external forces

from impinging on her.

This image of herself was articulated and explored. Ms. A began to remember feeling furious at her father for being so inconsistent, but feeling "afraid if I say anything I won't have him anymore." She said that depending on other people is a "set up to be hurt, more abandoned, not getting what I want." This expression of her dependency fears also reflected a beginning intensification of the transference. As Ms. A became more emotionally engaged in her treatment, her conflicts began to emerge with the therapist. What would it mean for her to depend on the therapist when the termination was only weeks away? How could she rely on him and be an adult at the same time? The therapist framed her struggle: the only person who clearly understood her and was interested in her was her mother. However, remaining in that "secure involvement" meant staying the "poor little Latina girl," disempowered and ineffective.

At this time, with greater clarity, Ms. A began to revisit her first panic attack: she remembered feeling abandoned and furious with the flight attendant who did not come to her rescue. She also recognized that she stayed silent, did not ask for help, and expected the flight attendant to be able to read her mind. She saw that the scene on the plane provided a potent trigger for an old dynamic – as she vacillated between being intruded on and abandoned by her father, her mother did not protect her. The therapist was quick to point out that on the airplane, unlike during her childhood, she actually did have recourse; the idea that she was helpless and vulnerable was a fantasy based on historic experiences. Ms. A's first panic attack occurred at a time when she was grappling with whether she wanted to stay in the cozy but stuck place with her mother, or emerge as a woman – thus, the experience encapsulated many of her fears of maturity. Ms. A began

to recognize her intense desire to stay a child: "Mom made being a grown up seem awful and hard. If I'm a little girl, then maybe I have better odds of getting your love, or kindness." Both in her life, and now in the transference, being vulnerable and small seemed to Ms. A the only way to get love and attention. Indeed, the therapist framed her panic as a way of guaranteeing the concern of others. However, her real needs were routinely ignored as attention was deflected onto the anxiety.

This interpretation triggered a transference fantasy: Ms. A reported recurring panic on the way to her sessions, as she became convinced that she had forgotten her wallet and would be unable to pay for the cab. She repeatedly imagined having to ask her therapist for money and felt "terrified and grossed out." Although she had never really forgotten to bring her wallet, this was a persistent anxious fantasy. In her life and in the transference, she revealed her firmly held belief that to depend on someone else is to be yucky and out of control. The therapist's interpretation emphasized the way she insisted on seeing herself as messy and vulnerable, including in the therapeutic relationship. In reality, Ms. A was organized and competent. Reliving this moment in the transference demonstrated to her that this image of herself stemmed from old patterns. By session thirteen, Ms. A was no longer having panic attacks. With this noise reduced, she was free to struggle with her core conflicts.

Phase III: Termination

Like most panic patients, Ms. A suffered from acute separation sensitivity, and for this reason, the handling of the termination process was of central importance. In Ms. A's treatment, anticipation of the termination began by session thirteen. As the final session loomed closer, Ms. A began to re-experience feelings of loss and sadness. Her

mother's death cast a shadow over the room. The termination felt like confirmation of her worst fears: if she depended on someone, she would be abandoned. Although Ms. A was panic free, as the end neared, she began to feel depressed. She said in a deflated voice, "If I do this work [the treatment], I don't know who I'll be." In the same way that she defined herself as her mother's little girl, it seemed that in the transference, she had begun to define herself as the sick patient who was doing work to please the therapist. She improved in order to continue to be that good little girl. However, the thought of the treatment ending ignited her fears of separation and loss, and forced her to think about defining herself apart from these central relationships.

At the same time, the therapist encouraged her to experience her anger directly – both in her life, and in the context of the termination. He stressed the importance of her feeling of having no recourse – as if her recovery, her whole self, depended on this treatment and she would be forsaken yet again as it ended. In reality, she had both options and the personal competence to handle them, but her persistent fantasy of incompetence, connected to her panic, continued to make her feel very anxious.

The final sessions brought her ambivalence over becoming more autonomous into sharper focus. Session twenty fell on the anniversary of Ms. A's mother's death. As she relived this loss with her therapist, she began to articulate the gratifying aspects of being ill. She said her depression is "a sort of tribute to my mother." Ms. A began to realize that her sadness (and her panic) was a way of staying connected to her mother, a way of not losing her. By understanding this aspect of her anxiety and depression, she could begin to think about new ways of having her needs met. Voicing her frustration and sadness directly to the therapist, without having to speak through panic, represented a

new and more mature way of coping with mixed, messy feelings. Rather than denying or enacting, she verbalized her feelings for the first time. The treatment helped her to understand the genetic antecedents of her current conflicts and further clarified the nature of her early attachment relationship with her mother. Although she left her final PFPP session in pain, it was an authentic pain that existed alongside her gratitude to her therapist, and her sense that, for the first time, she might be able to lead a more adult life.

Treatment Process: Core Themes

In reviewing the progression of Ms A's treatment, several cores themes emerged that appeared to contribute to the remission of her panic and agoraphobia. The conflict-based psychodynamic formulation of her panic attacks allowed her to begin to understand her symptoms in a new way: moving into adulthood, she felt stuck in an insoluble bind. In order to move forward and become independent, Ms. A had to leave aspects of her attachment to her mother behind. This process stimulated powerful feelings of guilt, as she felt that becoming more autonomous signified her abandoning her depressed, dependent mother. In addition to being guilty, she felt intensely sad, as leaving her mother meant giving up the one person by whom she felt truly understood. Further, it meant facing her fears of exploration, and coping with sexual and aggressive feelings that her mother would not be able to contain for her.

Ms. A's attempts at defending against her anger and disappointment with her parents led her to lose touch with many aspects of her true feelings. This defensive compromise allowed her to maintain the relationship with her erratic father, to feel close to her gratifying but limited mother, and to fit into to a social environment in which she felt different and alone. Although she saw herself as vulnerable and forsaken, she

maintained a happy outside veneer at all costs. She suppressed any experience of anger because it felt too dangerous.

Her panic symptoms were thus multidetermined, representing an expression of her conflict over whether she could permit herself an emerging autonomy as a happier and more successful person than her mother, given her deep bond and identification with her, and hinged on her inability to access her emotions. With her panic attacks and her phobic avoidance, Ms. A was able to elicit caretaking from others, and to stay unconsciously connected to and identified with her deceased mother. Recognizing these largely unconscious aspects of her experience allowed Ms. A to gain greater control over her life. Expressing herself in an emotionally charged way that reflected her real conflicts came to mean that she no longer needed to depend on panic and avoidance in order to feel heard.

While the brief nature of the treatment precluded an in depth exploration of some other aspects of the transference dynamics that emerged in sessions, the therapeutic relationship and the interpretation of the transference became important in her recovery. The therapist's active efforts to help her reframe her view of herself in accordance with reality, to see that she was an adult, appeared mutative. Her recurrent transference fantasy of having forgotten her wallet encapsulated her shame, her fear of dependence, and her wish to be cared for by him, alongside the pull toward dependence that she felt in all of her important relationships. The therapist's interpretations of this dynamic and his insistence that her view of herself as childlike was based on her history and, thus, a fantasy, no longer reflecting her reality, allowed her to feel less terrified by her attachment to him. In addition, it allowed her to grapple with her simultaneous identification with a lost child who wished to be rescued by him. By recognizing that her

symptoms allowed her to stay connected to her deceased mother (and now her therapist), she was able to consider alternative ways of carrying her attachments to her mother and therapist forward.

CHAPTER 6: DISCUSSION

This project has generated two important findings: 1) In this sample, patients with severe levels of agoraphobia are not distinguished by low levels of reflective functioning. 2) Agoraphobia improves more in PFPP than in ART. These results will each be discussed in detail below.

Reflective Functioning and Severity of Agoraphobia:

The present study examined the relationship between Reflective Functioning (RF), Panic Specific Reflective Functioning (PSRF) and severity of agoraphobia. Correlational analyses explored whether or not greater impairments in RF and PSRF were related to greater severity of agoraphobia. The findings from the present study do not support the hypothesis that they are related, as neither RF nor PSRF were significantly correlated with severity of agoraphobia. It was also hypothesized that patients with severe levels of agoraphobia would have greater impairments in PSRF than in RF. This hypothesis was not supported by the findings in the present study. Due to the small sample size in this project, any conclusions based on non-significant findings must be considered tentative at best. However, among the patients with severe levels of agoraphobia, RF scores ranged from below average to "marked" RF. This distribution suggests that these results might be meaningful.

There are two competing explanations for this surprising finding: 1) Contrary to expectations, in the agoraphobic population, the relationship between mentalization and symptom severity is not linear or 2) These patients do suffer from specific impairments in mentalization, but due to imprecise measurement, it was not possible to detect their

difficulties. Each of these arguments will be pursued, and the relationship between RF and psychopathology will be explored.

Severe Agoraphobia: A heterogeneous diagnosis:

The range of RF scores in this sample strongly supports the notion that severe agoraphobia is not defined by specific impairments in reflective functioning. This wide distribution suggests that there are multiple pathways to the diagnosis from a mentalization and ego psychological perspective. On one end of the continuum are patients with good mentalizing capacity; though they are able to think about their relationships, this does not help them to regulate their affect. On the other end of the spectrum are patients whose mentalizing capacity is more impaired. This distribution appears to challenge existing assumptions about both the nature of mentalization and the psychological functioning of patients with severe agoraphobia. Heretofore, mentalization theory has primarily focused on pervasive impairments in RF. In severe agoraphobia, it may be more meaningful to think about RF as a fluctuating capacity rather than a static entity. Across the disorder there is a clear spectrum of mentalizing capacity, and it is also possible that RF actually varies over time within individual patients.

Severe agoraphobia with intact RF:

The clinical and theoretical literatures consistently argue that severe agoraphobia relates to instability of the self-representation and ego impairments (Milrod, 2007; Frances and Dunn, 1975; Shear et al., 2004). The theoretical basis of this project was the idea that these specific developmental vulnerabilities might impart impairments in mentalization in severe agoraphobia. In this model, disturbances in early relationships with caregivers derail the development of this core capacity; patients who become

severely agoraphobic have been described by clinicians as being incapable of consciously tolerating painful conflicts (ambivalent rage/separation), and instead project internal fears onto external situations. I hypothesized that these limitations would be mirrored by a limited capacity to reflect on one's own mind and on the mind of others. Conversely, patients with intact mentalizing capacities have been thought by psychoanalytic clinicians neither to develop nor to tolerate the profound restrictions (both internal and external) that severe agoraphobia imparts. In direct contradiction to this argument, the range in RF scores in this sample demonstrates that patients with intact, even marked, reflective capacities do develop and maintain severe agoraphobia.

Mentalization theory is a developmental theory that has been very useful in picking up gross deficits in borderline personality disorder (Fonagy et al, 1995; Fonagy et al. 1998; Fonagy & Bateman, 2006). If agoraphobic patients characteristically suffer from the type of global difficulties in mentalization seen in BPD, the scale should have been able to detect these impairments. However, agoraphobic avoidance is a focal symptom: there are likely multiple pathways to the presentation of this symptom. In addition, there are several explanatory hypotheses to explain the continuum of RF in this sample of patients with severe phobic avoidance.

Fonagy and his colleagues' mentalization theory maintains that early developmental failures lead to pervasive impairments in RF. In understanding how this developmental process goes awry in BPD, they detail the way in which disturbances in the mother-infant attachment relationship disrupt the developing capacity for mentalization. Children with disorganized attachment suffer from the defensive inhibition of mentalization: avoidance of mental states begins as a defensive strategy, the child's attempt to protect himself from

the unbearable knowledge that his caregiver is also a source of pain. This defensive process has pervasive repercussions for development: first, the child's capacity for imaginative play is restricted, and subsequently, the capacity for mentalization never fully develops (Fonagy et al., 1995; Fonagy et al., 2002). This *deficit* leaves the child prone to a series of psychiatric and emotional problems in adulthood, BPD in particular. The relationship between impairments in mentalization and BPD has been clearly demonstrated (Fonagy et al., 1995), and RF is hypothesized to be the mediator of attachment security/insecurity between mother and infant (Fonagy et al., 2005; Slade et al., 2005). However, the relationship between mentalization and symptom expression is more opaque. For example, in a study of Transference Focused Psychotherapy for BPD, while RF improved over the course of treatment, this did not correlate with symptom change (Levy et al., 2006).

Indeed, the role of this important construct has been much less clear in delineating the processes involved in the development and maintenance of Axis I symptoms (Bouchard, 2006; Fonagy et al., 1996). In agoraphobia, the results of this project imply that the relationship between RF and severity of avoidance is non-linear. In agoraphobia, childhood relational developmental difficulties are different from those seen in BPD. It is thus unsurprising that the syndrome may bear a different relationship to RF. In BPD, the dyadic relationship with the mother is thought to be invalidating and grossly missatuned, and thus, the child does not learn to recognize the contents of his own mind or to understand the mind of the other. The developmental trajectory to panic disorder is quite different. Patients with panic disorder are found to suffer from behavioral inhibition (Kagan, 1987), a temperamental style characterized by avoidance of exploration and

novelty. In addition, adults with panic report mothers who are overcontrolling (Craske et al., 2001). In patients with agoraphobia with intact RF, the relationship with mothers is described by adult agoraphobic patients as being enmeshed, with a global difficulty tolerating the expression of intense affect. While this pattern certainly presents difficulties in adult development, unlike in BPD, the relationship is not disorganized. In contrast, the child is able to organize a sense of self in relationship to the caregiver. In panic with agoraphobia, difficulties tend to magnify overall distress in the separation process, as neither member of the dyad can tolerate separation or autonomy.

A developmental formulation for understanding panic disorder is important in making sense of the fact that many patients in the sample developed symptoms in spite of their capacity to mentalize. On the one hand, these patients showed the ability to think about mental states in sophisticated ways. They were able to understand the motivations and intentions of their parents, and they were able to appreciate mixed, ambivalent aspects of the relationship. Simultaneously, these patient's histories frequently reveal deep enmeshment in ambivalent relationships with the very same attachment figure. While these individuals have the capacity to reflect, the act of reflecting seems to stimulate anxiety rather than containing it (perhaps suggesting that the reflection is overanalytic and intellectualized rather than truly reflective). As reflection leads to the awareness of conflict and likely a corresponding desire for independence, it is not surprising that it would create anxiety and guilt, as it would threaten the patient's perceived need to depend on the attachment figure, and raises worries for the impaired, needy other. The object representation of other as abandoner is linked to the self representation of the abandoned by the linking affects of both fear and anger. Because

reflection does not contribute to affect regulation, and as reflection makes the maintenance of the infantile relationship impossible, these patients use concrete avoidance, turning away from thinking (regressing) to reduce the distress that knowledge creates. Then, the patient learns that restricting his mobility is effective in minimizing panic symptoms, and thus, the avoidant defense is reinforced and generalizes. In this way, while RF theory tends to emphasize the *inability* to reflect, in these patients with intact RF, the avoidance appears more defensive. As in the case of Ms. A, the object becomes the idealized psychic phobic companion and exploration becomes too dangerous. This in turn may reinforce or create deficits, contributing to the tenacity of the symptom.

In contrast, it is also possible that due to the abbreviated form of the RF interview, the marked RF scores actually represent overintellectualized, pseudo-reflection. Fonagy and colleagues (1988) describe a type of "overanalytic or hyperactive RF" which receive a score of "3" (below average RF):

> There is a group of interviews which have many of the hallmarks of mentalising yet on closer examination appear to fall way short of the mark. The subject comes across as psychologically-minded but in studying the narrative his/her reflections are mostly irrelevant to the task. The content of the interview, if anything, is excessively deep, with detailed yet unconvincing descriptions of subjective reactions of both subject and others (caregivers, siblings, partners or other attachment figures) (p. 33)

The patients with intact RF appeared to be driven to understand the mind's of their caregivers. However, as the narrative example below illustrates, the marked RF narratives were convincing and affectively connected. These patients seem to develop symptoms in spite of intact RF. Instead, it appears that unresolved conflict (both conscious and

unconscious) strains these patient's defenses, contributing to maintenance of symptoms. The RF scale does not capture these aspects of psychological functioning.

Narrative Example:

Ms. A: (BASELINE: RF: 7; PSRF: 6; Agoraphobic severity: very severe (4); baseline PDSS: 18; TERMINATION: RF: 7; termination PSRF: 7; termination PDSS: 4)

Ms. A's case was discussed in chapter four. She is a woman who, despite being markedly reflective, had become overwhelmed by conflicts over her emerging autonomy. Her RF narrative illustrates the way that intact RF can exist alongside tremendous conflict (conscious and unconscious).

When asked to discuss her relationship with her mother, she stated:

> She created a great place for me to work things out with my dad. She made me feel safe and secure. My dad was an alcoholic and kind of disappeared from my life, and she let me talk about that. A lot of it to a fault. I was probably too young to be talking about it so much, but she didn't want me to be like her and not have the opportunity to talk and have feelings.

As seen in this excerpt, at baseline, Ms. A showed the capacity to reflect on the mixed aspect of her relationship. She both acknowledged her disappointment and appreciated her mother's motivations. Although her mother was misguided, as her intentions were benevolent, Ms. A could forgive her. In this way, she was quite reflective. A look at the content of the passage, however, reveals her ongoing conflicted feelings about her childhood, and it illustrates her defensive attempts at managing this struggle: while her mother created a space for her to think about and experience her feelings, she did not provide her with a way to contain these affects. Flooded by feelings

and ideas that were developmentally inappropriate, Ms. A likely had to work overtime to reflect in order to emotionally navigate this overwhelming content. Furthermore, by understanding and sympathizing with her mother, she avoided feeling angry with her. Her sophisticated capacity to understand her mother's intentions seemed to work against her capacity to experience her anger at her mother. Although the construct of "hyperactive RF" does not seem to fit Ms. A, perhaps her capacity for RF was uneven, itself highly evolved for defensive means (to avoid being angry at her mother). While she was able to think in complex ways about her mother's intentions and mental states, her reflective capacity was less developed in terms of her ability to tolerate her own affective states.

When asked what impact her mother had on her life, she stated:

> She is everything to me. She died 10 years ago, and I miss her calls to get through things with my daughter. Miss the conversations we would have. There is nothing that I go through in life that I don't feel her support because I feel I got so much in those first 26 years.

As it emerged in her treatment, her refusal to live her life to the fullest represented an unconscious identification with her deceased mother. In this way, rather than facing this most definitive separation, she maintained this unconscious link by refusing to live to her own capacity. Connecting to one of her own mental states (her rage) would threaten her relationship with her mother. Her mother's death contributed to a psychic regression away from self-other differentiation, in an unconscious attempt to recreate the gratifying state of merger her mother's death foreclosed. As long as she kept her symptoms, she avoided fully acknowledging that her mother was gone. Interestingly, in this passage, she

switches tense, speaking about her mother in the present as if she were still alive. The unconscious denial of her mother's death represents a focal RF deficit within this otherwise strong narrative, yet the RF scoring methods are too broad to accurately pinpoint this numerically.

Ms. A's capacity to understand her mother's mind and to see the relationship as a dynamic and changing process was quite developed. For this reason, she received a high RF score. However, while Ms. A was aware of painful mixed feelings of gratitude, anger, and guilt, this awareness did not protect her from developing severe anxiety symptoms. Rather, her acute awareness was unbearable for her. Her phobic avoidance allowed her to maintain a regression to a simpler, more gratifying fantasy of continued connection to her mother despite her death, allowing for escape from her painful and unresolved emotional experience. This example illustrates the way that mentalization, conflict, and defenses interact; a patient with intact RF is still capable of suffering from debilitating levels of unconscious conflict, and regression serves an important psychological and relational function even in patients who are good overall mentalizers.

Ms. A.'s narrative style and her successful therapy suggest that patients who are good mentalizers may be particularly well-suited to benefit from a treatment that addresses core conflicts and defensive processes. As evidenced by what took place during her therapy, although she was not always able to make emotional sense of her symptoms, she was interested and engaged in trying. Indeed, Ms. A's treatment allowed her to consider these conflicts and she began to look inwards in a new way. Although she felt this process to be frightening and difficult, she experienced significant reduction in her panic and agoraphobia, likely at least partially determined by her ability to harness

and expand on her well developed capacity for reflection.

Severe Agoraphobia and Impaired RF:

In contrast to the patients with marked RF, there as a subset of patients who were concrete and disinterested in the requested attempts to reflect on their attachment relationships. These interviews present a clear illustration of the way in which the same surface symptom (phobic avoidance) develops in patients with different orders of psychological functioning. In the patients with below average RF, avoidance appears to represent a concrete projection of internal fears onto external situations; as the patient ventures into the outside world, they find frightening internal fantasies in benign places, and they retreat into a safety zone where neither thinking nor feeling are possible. Patients with below average reflective capacities seem unable to fully own or make sense of their acute disappointment in their relationships, as they do not have the emotional capacity to view their relationships in a balanced, three-dimensional way. For this reason, in the patients with severe agoraphobia with impaired RF, angry and fearful affects are closer to the surface and less contained. Conflict is outside these patients' awareness, and avoidant symptom emerge as ego syntonic. As a comparison point to Ms. A's case, the following narrative example provides an illustration of a patient with below average RF:

Narrative Example:

<u>Ms. B</u> (BASELINE: RF: 4; PSRF: 5; Agoraphobia: severe (3); PDSS; 10; TERMINATION: RF: 4; PSRF; 5.5; agoraphobia: mild (1) termination PDSS: 7)

Ms. B is a 25 year old, white, single, paralegal. She presented to the research project with Panic Disorder and Agoraphobia, stating that her panic "comes up

randomly." When asked about stressors in the prior year, she stated, "Nothing specific. My mother was diagnosed with MS in March. I broke up with my boyfriend. I thought I had cancer, but it was just a lymph node." From the first moments of her intake, she evidenced difficulty acknowledging painful material, as she glossed over the impact of these major life events. Ms. B reported that this was her first episode of panic and that it began six months ago. She stated, "It has limited myself. It has limited experiences and relationships."

Ms. B chose to discuss her father, and her description was sparse and one-dimensional. When asked to describe her father, she stated, "Pretty strict. Not super loving or affectionate at all." Although the interviewer might have probed to elicit more information here, her terse, surface based descriptions persisted throughout her narrative. When asked to describe the relationship with her father, she stated, "Kind of formal, cordial. I don't tell him anything and vice versa." When asked to describe a memory, she stated, "one time he got so mad at me he shook me really hard. He'd never laid a hand on me or hit me before." When asked what impact her father had on her life, she responded, "Pretty big impact. He has helped me to be independent. I try to make it without his help. It makes me want to be more successful as a person." And finally, when asked why she chose to talk about her father, she said, "We just got into a fight two nights ago. We talk on the phone four times a year."

In assessing this transcript, although her answers were sparse, negative associations and memories quickly came to the surface, and they were neither integrated nor elaborated. The rejection she experienced still felt central. Unable to verbally reflect on her father's motivations or intentions, she could not even acknowledge her conflict about

wanting to be close to him vs. feeling enraged with him. Ms. B seemed unaware of her ongoing struggle, and she was unable to achieve emotional distance from her father even though she had achieved physical distance from him. She remained vague and uninterested in delving deeper into her experience of the relationship. Interestingly, through Ms. B's course of PFPP, her avoidance moved from the severe to the mildly avoidant range. However, her overall PDSS score was only 30% improved. Ms. B's narrative style suggests that before a real exploratory treatment can begin, she would need to trust that the therapist's intentions were benign, and the therapy would need to help her use language to label and contain her overwhelming affects. Indeed, it seems that in this case, she had partially responded to the treatment (she is a "non-responder"), but she might have required more time to develop the ability to acknowledge her feelings without developing panic levels of anxiety (Of course, even though these different narratives clinically suggest different ability to engage in treatment, it is important to remember that improvement in PFPP was not related to baseline RF in this sample). These two narrative examples illustrate the striking difference in reflective capacity across the spectrum of patients in this sample.

Emptiness Revisited:

The range of RF scores in this sample also raises another theoretical question: how can we revise our understanding of the internal constriction/emptiness that has been clinically observed in agoraphobia? This self state has been theoretically linked to incomplete, unstable self representations (Milrod, 2006; Diamond, 1985). For this reason, in this proposal, it was hypothesized that internal experiences of emptiness might relate to corresponding impairments in RF. Milrod (2006) states, 'The way in which

agoraphobic patients avoid thought and reflection has a specific tenacious and phobic quality…" Milrod speculates that this "inner constriction" arises out of an *inability* to think about or articulate mental states and says that "fears of the external unsafe world reflect and mirror an inner fear of the internal world, or of thinking and intense emotions". Along these lines, it seemed plausible that severe agoraphobia would correlate with impaired RF. Based on the range of RF scores in the current project, however, the hypothesis that impaired RF relates to this "inner constriction" must be revisited. Rather, this internal experience seems to arise in patients with different levels of psychological functioning. Glucksman (2000) draws a contrast "…between [patients] who use inner blankness as a defense against intolerable feelings and … [patients] whose inner blankness represents a deficit of self-representation" (p. 265). Lafarge (1988) also observes that emptiness may be present in both borderline and neurotic conditions, arising from different psychological mechanisms. In either constellation, she cautions against assuming that emptiness arises from a developmental deficit. In both borderline and neurotic structures, she sees emptiness as a defense, albeit of different qualities and functions.

Rather than attempting to determine whether this self state arises from a developmental deficit or a defensive process, it may be more useful to think about the way that defense and deficit interact: defenses may lead to deficits and deficits may inform defensive styles. Pine (1994) cautions against relying on a deficit model noting the way that "defect" and conflict inform each other: "Conflictual meanings get attached to experiences of deficit as they do to anything else. But one must be careful in looking through the analytic lens to see what is primary and what is secondary, or at least to see

coexisting and complementary sets of forces" (p. 235.)

Lafarge (1988) describes the way that the state of emptiness represents a defensive response to underlying ego weakness, highlighting the interaction that Pine describes. In borderline patients, Lafarge states: "…empty states can be understood as defensive organizations which are mobilized by borderline patients at times of particularly stressful regression, in order to ward off further regression to psychotic states of fragmentation or fusion" (Lafarge, 1998, p. 968). Even in the neurotic patient, empty states can serve "active, defensive organizations that protect fragile structures from further regression" (p. 994). Further, the empty state may protect the individual from intolerable, primitive rage. In this way, defense and deficit interact even in neurotic levels of personality organization.

Milrod (2006) observes the interaction between defensive style and self representation, describing a case in which "this patient's emptiness had a partially defensive quality, designed to avoid any whiff of her mother's depression. Her vacancy and inability to develop so many aspects of herself also represented a deficiency in the structure and stability of her self-representation." This patient's difficulty looking inward related to a defensive avoidance of a painful reality; however, it was also necessary due to the patient's incomplete separation from her mother. Acknowledging her mother's depression would have threatened the stability of her self structure; instead, she adopted an avoidant defensive posture. Remaining connected to her mother required a retreat from permitting herself greater knowledge about her feelings.

In the case discussion presented in chapter five, Ms. A illustrated the way that defensive style interacted with incomplete self-other differentiation. In thinking about her

childhood, she stated: “I just felt wrong. I didn’t really exist because I was so off from everyone else, completely disconnected. It felt sad and lonely. Any time I felt those feelings, I would try to do something to cover it up, but I would vacuum up my great qualities at the same time. It was hard work not to disappear and not to fall apart.” She clearly defined the function and the consequence of this internal state. Ms A defensively retreated so that she did not fall apart. However, this retreat came at a cost, as she lost much of her vitality.

Disturbances in mentalization may be transient and contextual, or they may be pervasive. The hypothesis that impairments in RF would relate to severity of agoraphobia may have been an oversimplification of the processes that lead to this internal constriction. In Ms. A’s case, her experience of emptiness arose out of both her incomplete separation from her mother and out of a defense against the intolerable affective experience she approached when she brushed against the possibility of abandoning her, even in fantasy. Just as her overt behavior (phobic avoidance) did not directly connect to RF, her internal experience of emptiness may be similarly multidetermined.

Measurement Issues:

The above discussion argues that the statistical findings are supported by the range of RF scores in this sample. However, it is also possible that the range of RF scores were due to measurement error. In this case, the patients with severe agoraphobia who had intact RF in this sample do suffer from deficits in mentalization, but the instrument used was unable to detect their difficulties.

Indeed, in episodic disorders with focal symptoms, the picture may be more complicated, and the RF scale may not provide the three dimensional map that corresponds to clinical observations about the myriad components involved in mentalization. Bouchard and colleagues (2008) address this issue in their investigation of three different scales that they identified as measures of mentalization: Reflective Function, Mental States, and Verbal Elaboration of Affect. The authors looked at these scales' level of correlation with one another and the scales' ability to predict both Axis I and Axis II disorders. They conclude that "mentalization is not a homogenous process… [The findings] suggest the existence of three potential components of mentalization: predominant high-level defensive functioning over low-level defensive activity; abstract verbal articulation and objectivation; and an attitude of focusing on mental processes" (Bouchard et al., 2008, p. 60). This model asserts that the RF scale only captures one facet of mentalization. It also acknowledges the importance of defenses, an aspect of emotional functioning that is noticeably absent from the RF system.

Mirroring the findings in the current project, Bouchard and colleagues (2008) found that level of RF was not predictive of Axis I pathology. Rather, Bouchard and colleagues (2008) maintain:

> "… the presence, and severity of Axis I pathology is likely associated with a more complex deficit in mentalization because more facets are involved in its prediction. High level defensive activity is characterized by a capacity to withhold, inhibit, repress, and mentally contain within the self a given emotionally meaningful, often threatening, or unacceptable affective experience. Whatever the causal chain of factors, we may speculate that the presence of a significant problem (on Axis I) in itself creates a pressure for more mentalization, as it simultaneously reflects intrapsychic conflict" (p. 62).

From this perspective, in Axis I disorders, overwhelming intrapsychic conflict actually

demands increased RF, as the patient is drawn into more active attempts at affect regulation. Furthermore, conflict might increase the patient's need to mentalize, to make sense of increasingly complicated internal dynamics (conscious and unconscious). Bouchard and colleagues' model suggests that measurements of RF alone are not sufficient to measure the interaction between defensive functioning, unconscious conflict and mentalization.

Fonagy and colleagues (1998) also acknowledge that mentalization may not be consistent across situations or relationships:

> RF is a strand within the developmental web, one of the many distinct control systems that are neither strongly connected with each other, nor coordinated or integrated. The "fractionation" or splitting of all abilities as a function of tasks and domains is well demonstrated, and we might expect RF to be subject to the same kind of developmental décalage (unevenness) which characterizes the rest of cognitive development… Unevenness across situations is likely to remain prevalent even in adults, especially when they are emotional (Fonagy et al., 1998, p. 8).

Individuals who normally rely on higher order defenses may employ more primitive defenses under stress, or when in conflict. Similarly, individuals with intact reflective capacities may be prone to fluctuations or disruptions in RF when under duress. Mentalization is likely a capacity that is subject to the same distortions, disruptions and impingements as any other ego function, and these variations may not be detected by the RF interview.

Self vs. Object Representation:

Another noteworthy limitation of the RF scale is that it conflates the capacity to understand the self with the capacity to understand the object. By lumping these two

skills into one category, it is not possible to distinguish between the patient's self reflective capacities and object reflective capacities. This limitation is particularly relevant in assessing the RF of agoraphobic patients, as these patients self representations are often fragmented. Split off representations that cannot be integrated but instead must be lived out through the acting out of agoraphobic avoidance (Diamond, 1989; Milrod, 2007). Bouchard and colleagues (2008) found that "RF seems to be more sensitive to a subject's quality of affect elaboration of others rather than of self. This is consistent with the theory of mind construct that underlies the importance of "figuring out" a caregiver's intentional stance, as a key co-acquisition towards safe attachments" (Bouchard et al., 2008, p. 60). The RF measure may not be fine tuned enough to capture the way in which patients with panic disorder have incomplete self-object differentiation.

Bouchard's statement also implies that an individual may develop an astute understanding of his important objects, even while neglecting self-understanding: In less conflicted development, focus on the object is adaptive. In a secure relationship, it likely reinforces the child's feeling of felt security, confirming the caregiver's interest in the child's mind. In a cyclical process, interest in the other reinforces the feeling of being known. This positive synergy likely contributes to the child's development of a stable and coherent sense of self. However, in more conflicted developmental relationships, an emphasis on understanding the other may actually become preoccupying (like in the case of Ms. A). Fonagy and colleagues (2002) describe this type of process in children with disorganized attachment, stating, "…the child needs to use disproportionate resources to understand the parent's behavior, at the expense of reflecting on self states. These factors combine, perhaps, to make disorganized infants keen readers of the caregiver's mind

under certain circumstances, but (we suggest) poor readers of their own mental states" (Fonagy et al., 2002, p. 350). In this way, preoccupying focus on the other may lead to a relative disregard and lack of connection with the self. In disorganized attachment, focus on the other may facilitate survival, but as the child finds himself reflected back inaccurately or chaotically by the parent, the development of a coherent sense of self is undermined. Disparities in the capacity to understand object vs. self are not captured by the RF scale and should be addressed in future research.

This distinction seems particularly relevant in the current project, as it offers one explanation for the high RF scores seen in this sample. It is theoretically plausible that agoraphobic patients with intact RF have object reflective capacities that are more developed than their self reflective capacities. Agoraphobic patients are often overly dependent on attachment figures. Fear of separation and abandonment increases the focus on the object. For this reason, it makes sense that agoraphobic patients become quite astute in thinking about important objects. Anticipating (and even manipulating) the phobic companion's behavior maintains the enmeshed, infantile relationship. Disavowing internal experiences of rage and disappointment is equally important to the patient's perceived view of emotional stability. For this reason, tolerating complex internal experiences, owning one's intentions and desires, may be more challenging than reading the mental states of the object. The object casts a huge shadow over the self, and the self finds comfort in this obscurity.

Certainly, in the case of Ms. A, her treatment revealed the way in which her understanding of the object seemed to preclude close emotional connection with herself. For example, her statements: "I worry who am I going to be if I don't worry so much

about covering up? I have to focus to not disappear," and "The last time I was a truly honest, full person, I was four. I don't know who there is once this stuff is gone," reveal the way that she adaptively disconnected from her own mixed, uncomfortable feelings in order to survive. Her sophisticated capacity to understand the objects in her life taught her that asserting her own needs would have destabilized the entire family and forced her to face unbearable conflict and pain. Certainly, her mother may not have been able to handle her autonomy, and she may have been responding to her mother's real fragility. In this way, while RF may be intact, it may not capture the incomplete self-other differentiation in these patients.

The current project may have been particularly influenced by this dichotomy. The abbreviated RF interview primarily emphasizes the subject's understanding of relationships. Few of the questions in this brief assessment directly ask the patient to contemplate his own mind. It is possible that the scores in this sample are inflated as an artifact of this skew. The Panic Specific Reflective Functioning Interview asks the patient to think about themselves in the context of their symptoms. While this interview does not directly target patients' capacities to articulate their sense of self, it does ask them to look inward more directly. Interestingly, Rudden and colleagues (2006) found that PSRF was significantly lower than RF in these patients, perhaps lending further support to this idea (systematic empirical testing is necessary to test this hypothesis)

Concluding Remarks:

In this section, two competing arguments have been presented to explain the quantitative findings: 1) Severity of agoraphobia is not related to disturbances in RF 2) Due to the measure's limitations, we were not able to detect this relationship.

In attempting to reconcile these conflicting explanations, in looking at the narrative examples, the range of RF seems meaningful in this sample. Therefore, it seems unlikely that the nonsignificant findings that emerged from this study can be entirely explained by measurement limitations. Rather, there seem to be two sets of patients within the agoraphobic population: 1) Those who develop symptoms in spite of their intact reflective capacity. In this group, symptoms emerge in spite of a sophisticated ability to mentalize. Even with intact RF, unbearable unconscious conflict or constitutional vulnerability still lead to symptom development, and 2) those who develop the syndrome out of a real inability to look inwards. These patients' lack of reflectiveness leads them to project internally frightening experiences onto external situations, and their underlying ego weakness may contribute to symptom formation.

Although there is a range of RF in this sample, in the patients with intact RF, the RF scale itself may not detect the way these patients have not completed self-other differentiation. Indeed, RF seems a better measure of object representation than of self representation, and as such, these patients' focal difficulties connecting to their own emotional states may go undetected using this method. While their impairments are not global, these weaknesses may be clinically meaningful.

In this way, this dissertation has generated two testable hypotheses: 1. Agoraphobia is a heterogeneous diagnosis comprised of patients with both intact and impaired RF (This would require testing on a much larger and more heterogeneous population of agoraphobics), and 2) the agoraphobic patients with intact RF may have a superior capacity to think about important objects that exists alongside specific weaknesses in aspects of their self representations (this hypothesis also requires empirical testing).

PFPP as an effective treatment for agoraphobia:

This section will review the second major finding that has emerged from this project: PFPP is more effective than ART in treating agoraphobia. Of great research and clinical significance, reduction in agoraphobic symptoms was significantly greater in PFPP than ART ($p < .01$, two-tailed), the first time that a psychodynamic treatment has demonstrated efficacy in treating phobic avoidance. This finding seems particularly important for several reasons: 1) 19 out of 26 patients (73%) in this sample carried a diagnosis of mild to moderate agoraphobia (and 78% of the larger sample). 2) Even among those who did not meet full diagnostic criteria for agoraphobia, many patients suffered from mild symptoms of avoidance. Only 2 of 26 patients (8%) endorsed no avoidance at baseline. 3) Agoraphobia predicts poorer outcome in medication and cognitive behavioral treatments trials (Brown & Barlow, 1995; Kessler et al., 2006; Noyes et al., 1990; Pollack & Otto, 1997; Slap & den Boer, 2001). This finding highlights the potential strengths of PFPP in treating this resistant group.

On the surface, PFPP's effectiveness in treating agoraphobia may seem surprising given that it does not employ an exposure protocol. However, PFPP may impart certain advantages in treating avoidance: exposure theory maintains that systematic desensitization reduces the anxiety associated with trigger situations (Craske et al., 2003; Craske & Waters, 2005). From a psychodynamic perspective, if agoraphobia is related to the reliance on avoidant defenses, the exposure paradigm asks the patient to give up his – albeit faulty - defense without providing alternative coping strategies for the overwhelming conflicts and emotions that have triggered these defenses in the first place. Furthermore, patients with difficulty functioning autonomously can complete

complicated therapist-directed exposure protocols without ever having to become more autonomous. Given the irrational nature of phobic avoidance and its unconscious underpinnings (Lewin, 1952; Milrod, et al., 1997; Milrod, 2007; Shear et al., 1993), perhaps the exploration of associated fantasies may be more fruitful than exposure to specific feared situations. By reducing the intensity of core conflicts, rigid defenses may give way to more adaptive ones, rendering situational avoidance unnecessary. If indeed the avoidance is defensive, if the avoidance protects the patient from further regression, then it is unsurprising that severely avoidant patients would be quite resistant to change in a behavioral treatment (this underscores the fact that patients with severe agoraphobia have the poorest response to CBT in the empirical literature (Brown & Barlow, 1995; Kessler et al., 2006; Noyes et al., 1990; Pollack & Otto, 1997; Slap & den Boer, 2001). Alternatively, from a CBT perspective, discussing these emotional issues may provide a different form of "exposure", one not based on *in vivo* protocols.

The directive, therapist-centered approach in CBT also allows the patient to maintain a childlike stance, avoiding autonomous decisions, and relying on the therapist to provide explicit strategies for overcoming avoidance. The therapist takes the place of the phobic companion. Milrod and colleagues (2007) found that panic patients with comorbid Cluster C (Anxious/avoidant) personality disorders experience greater improvement in PFPP than those without comorbid Cluster C disorders. Their hypothesized reasons for this outcome are relevant in understanding the improvements seen in agoraphobia in this sample. In comparing PFPP to the active psychotherapies, they state: "[Exposure protocols]… can, if viewed from a psychoanalytic lens, potentially foster continued dependence on authority figures like the therapist, while overlooking

underlying, enduring psychological conflicts that maintain the patient's sense of incompetence" (p. 889). The authors view the phobic symptom as a regression to an infantile position that facilitates both the avoidance of conflict and the perpetuation of childhood fantasies. From this perspective, CBT likely pulls for a transferential repetition of the passive childhood relationship with the attachment figure without any exploration or awareness of the underlying ambivalence. Without active exploration of these dynamics, and with their further reinforcement through the exposure paradigm, the conflicts and defenses remain entrenched. Furthermore, agoraphobic patients see irrational danger in benign places, and they maintain the idea that by cocooning themselves into their magical "safe" space, they will be kept safe from harm. The CBT approach does not examine the meaning of these fantasies, instead taking magical thinking at face value. Finally, Milrod and colleagues (2007) assert, "The psychodynamic approach …aims to empower such patients to become more active and assertive by helping patients to articulate the fantasies that underlie their inhibitions regarding becoming more autonomous, perhaps enhancing symptomatic outcome." (p. 889). In this way, PFPP attempts to scaffold the patient in becoming independent, bolstering reality testing, challenging regressive fantasies, and creating a safe place in which to explore frightening affects. As disowned aspects of mental life become integrated, patients begin exposing themselves to feared situations without therapist suggestion.

In Ms. A's case, the most severely agoraphobic patient in this sample, a specific, focused attempt at exploring her unconscious conflicts lent itself to symptomatic improvement. Indeed, Ms A's ability to understand both the roots and the current

function of her symptoms allowed her to stop avoiding. As she became less symptomatic, she revealed her sense of underlying emptiness, vulnerability and shame. Working with these core aspects of her experience allowed her to reconnect to her own feelings and to work through some aspects of her unresolved childhood situation. As she began to see herself more clearly, she was able to feel more comfortable being more adult.

Limitations:

Sampling issues:

This project has several significant limitations; thus, the interpretation of the findings must be couched in the context of their generalizability. It is possible that these findings are due to features of this sample which may not be representative of the most severe end of the continuum of agoraphobia. This project only included patients who could come to the research offices and tolerate twice weekly out-patient psychotherapy. Therefore, it may have excluded the most disturbed agoraphobic patients. As part of development of the RF scale, Fonagy and colleagues (1998) examined RF in different psychiatric conditions among 82 inpatients. In this sample, the mean RF score for inpatients with a primary diagnosis of anxiety was 3.5. This mean is significantly lower than the mean RF score in the current sample of outpatients (5.05). As such, Fonagy's sample of inpatients with anxiety disorders may be more representative of the very severe end of the continuum.

Second, the analyses were conducted on a small sample size (N=30 for the correlational analyses, N=26 for the regressions). Lack of significance may have been

due to inadequate power to detect meaningful differences. Furthermore, the moderator analyses are limited by the uneven sample size between the two groups (17 assigned to PFPP, 9 assigned to ART). The groups were uneven due to unavoidable constraints imposed by limitations of researching funding for the RF project. Rudden and colleague's sub-study began after the RCT was already in progress; it was impossible to ensure equal assignment to the two treatment groups as randomization was based on a larger sample. Furthermore, in both Rudden's project and Milrod's parent study, dropout rates were significantly higher for the ART condition than the PFPP condition. While this difference may reflect PFPP's greater tolerability for treating panic patients, it contributed to the uneven sample size between the two groups, rendering meaningful comparison between the two groups more compromised.

Measurement Limitations:

Reflective Functioning Interview:

RF was measured by Rudden and colleagues' Reflective Functioning Interview. The RF interview was piloted for this project, the first time this interview was administered without a full AAI. While independent raters achieved reliability in scoring RF on this abbreviated interview, no validity data are available. The abbreviated RF interview was developed for incorporation into larger randomized controlled trials that already place considerable assessment burdens on research subjects. For this reason, the interview is significantly shorter than the AAI. The RF interview was developed with Mary Target, one of the authors of the RF scale, and it is based on the "demand" questions of the AAI. The "demand" questions are those that are thought to most stimulate reflection. This adaptation was designed in an effort to retain aspects of the

AAI that best capture RF. However, the brevity of the interview exerts a noticeable impact on both its administration and its scoring. When administering the full AAI with the aim of assessing RF, there are several "warm-up" questions that come before the demand questions. Subjects are given an opportunity to settle into the task, to begin thinking about their attachment relationships, and to gain rapport with the examiner before getting into the "meat" of the interview. During the abbreviated RF interview, however, each question is important and used in RF scoring. This structure poses certain difficulties. For example, a brief, seemingly guarded and constricted answer may be the result of a defensive refusal/inability to mentalize, or it may simply be because the subject has yet to grasp the purpose of the interview. Attempts were made to decrease this type of confound: First, the interview was administered after the interviewer had already spent several hours with the subject performing diagnostic and symptomatic assessments; in this way, the interviewer had already established rapport with the subject, and the subject was likely to feel comfortable answering more personal questions. Also, probing and clarifying questions were asked with the aim of distinguishing between brevity as an artifact of the interview and brevity arising from difficulty thinking about mental states.

The abbreviated RF interview also invites the subject to pick one of his parents. In the full AAI, the subject is asked to think about his relationship with both parents. The decision to truncate the interview in this way poses significant research questions. First, patients may choose to discuss the less conflictual parental relationship. This problem seems particularly germane to patients with agoraphobia, as they rely on avoidant defenses (Pollack & Andrews, 1989; Bond, 2004). By allowing the patient the option to

choose the relationship that is less affectively loaded, this interview may tap into different types of parental representations. As the full AAI was not administered, no direct comparison can be made at this time, and thus, whether or not the choice of parent had an impact on overall RF scores remains unclear. Finally, the brief interview may not fully capture subjects' regulatory difficulties. A longer interview is likely to be more intense and comprehensive, potentially providing a greater window into the subject's full range of reflective capacity.

Panic Specific Reflective Functioning Interview:

The construct Panic Specific Reflective Functioning (PSRF) was also piloted for the first time in this project. Although Rudden and colleagues (2006) found that PSRF increased in PFPP and not in ART, this finding did not correlate with symptomatic improvement in overall panic disorder. Rudden and colleagues suggest that improvement in panic symptoms may result from as of yet unidentified factors that take place during the course of PFPP (Rudden & colleagues, in preparation). However, as no validity data are available, it is certainly possible that the PSRF interview does not provide a complex and accurate measure of the construct of panic specific reflective functioning. Furthermore, the construct validity of the measure has not yet been assessed. Whether or not PSRF is a valid construct, and whether or not it relates to other similar measures has yet to be empirically tested.

In spite of these limitations, the RF and PSRF interviews make an important contribution to the study of both RF and panic disorder with agoraphobia: The pragmatic value of the RF interview is not to be underestimated, as it allows for the easy integration of RF assessment into large RCTs, in which the administration of the AAI would be

impossible. However, until validity data are available, the advantages and the utility of these brief interviews must be juxtaposed against these significant drawbacks. Further measurement research is essential.

Panic Disorder Severity Scale:

The choice to use item #4 on the PDSS as the measure of severity of agoraphobia has certain limitations. It would be reasonable to argue that because this item is embedded in the overall PDSS score, it does not reflect a separate finding from overall panic severity. Item # 4 on the PDSS is an overall measure of agoraphobic severity; therefore, while it is a good indicator of severity of avoidance, it is not three-dimensional. Chambless and colleagues' Mobility Inventory may have been a better measure of agoraphobia, as it captures both the subject's ability to function independently and the ability to function with a companion (Chambless et al., 1985). Unfortunately, this measure was not incorporated into the original RCT. Therefore, a replication of this finding using the Mobility Inventory with a larger sample is warranted. Nonetheless, item #4 of the PDSS has been correlated with standardized instruments, and it was found to have a higher correlation with the Albany Panic and Agoraphobia Scale than with any other item on the PDSS or with total PDSS score (Shear et al., 1997). In this way, item #4 provides an accurate measure of agoraphobia.

<u>Biological contributions:</u>

This dissertation emphasizes the psychological factors that contribute to the development of panic disorder with agoraphobia. For this reason, the interaction/contribution of biological and genetic variables was beyond the scope of this discussion. However, it is certainly possible that genetic, neurochemical or

morphological differences are also central in the development of panic disorder with agoraphobia.

Future Directions

The findings from this dissertation raise several areas for future research: 1) since RF does not correlate with severity of agoraphobia in this sample, research should continue to investigate potential factors that might contribute to poor outcome in agoraphobia. Potential areas of inquiry might include a) more specific attempts at assessing self representation in these patients b) an assessment of defensive style in agoraphobia as it pertains to outcome. 2) Validity studies of the abbreviated RF interview should be conducted to determine whether or not it correlates with RF measurements on the AAI. It is possible that patients with agoraphobia seem more reflective on the Reflective Functioning Interview, as this interview is biased towards assessment of the subject's understanding of his relationships. This tilt may limit the capacity to assess the subject's self reflective capacity; patients with agoraphobia may be experts at "figuring out" attachment relationships at the expense of self exploration. Future research is necessary to test this hypothesis. 3) The empirical findings from the correlational analyses and the qualitative review of the RF narratives suggest that RF may be a fluctuating rather than static capacity. Do disturbances in RF represent a developmental deficit, or is it an ego function prone to failure when strained by conflict or life stressors? This area of investigation seems particularly relevant as we continue to explore the relationship between RF and anxiety disorders. 4) Finally, PFPP demonstrated efficacy in treating phobic avoidance in this small sample. Further research

is warranted to confirm this finding. Specifically, this study should be replicated in a larger sample. PFPP should be formally compared to CBT in terms of its ability to treat phobic avoidance. (A larger comparison of PFPP vs. CBT vs. ART is already in progress.) PSRF did not moderate outcome. Further research should explore other potential moderators.

Conclusion

This project examined the relationship between Reflective Functioning, Panic Specific Reflective Functioning and severity of agoraphobia. Neither RF nor PSRF bears a significant relationship to severity of agoraphobia. This project also investigated whether or not baseline PSRF moderates treatment response both in terms of change in panic symptoms and change in agoraphobic symptoms. The interaction between PSRF and treatment condition was not significant in either case. Thus, PSRF is not a moderator of outcome.

However, assignment to PFPP predicted greater improvement than assignment to ART in terms of reduction in panic severity, mirroring the findings from the parent study (Milrod et al., 2007). Most importantly, assignment to PFPP significantly predicted reduction in agoraphobia. This represents the first time that a psychodynamic treatment as documented efficacy in treating phobic avoidance. Given the poorer response rates of patients with severe levels of agoraphobia in evidence based treatments for panic disorder, this finding makes a significant contribution to our understanding of how to treat this resistant symptom.

APPENDIX:

Appendix 1: The Panic Disorder Severity Scale:

PANIC DISORDER SEVERITY SCALE (PDSS)

Understanding the Goal and Development of the PDSS: The goal is to obtain a measure of overall severity of DSM IV symptoms of panic disorder, with or without agoraphobia. Items include frequency of panic attacks and limited symptom episodes (LSE), distress caused by panic and LSEs, anticipatory anxiety, agoraphobic fear/avoidance, panic-related sensation fear/avoidance, and work and social impairment. The scale was developed for rating severity in individuals already diagnosed with panic disorder. The scale should take about **10-15 minutes** to administer.

Using a Past MONTH Timeframe: The time frame for the PDSS is **the past month**, and should be consistent for all items.

Using the Scale: Each item is rated from 0- 4, where 0=none or not present; 1=mild, occasional symptoms, slight interference; 2=moderate, frequent symptoms, some interference with functioning, but still manageable; 3=severe, pre-occupying symptoms, substantial interference in functioning, and 4=extreme, pervasive near constant symptoms, disabling/ incapacitating.

Using the Script and Reliability Issues: A suggested script for each question is provided as a guide to questioning. For each item, **reiteration** of what the subject has said in the previous ADIS-Lite sections (PD and AG) is acceptable and should be used to clarify ratings and insure greater reliability. For LTS, raters who do not have much experience with panic disorder should read all of the questions for each item. Experienced raters may also find the script an efficient way of assessing symptom severity. If raters are not sure of the ratings, use all of the questions for each item.

Making Ratings and Using Descriptors as Probes: The patient should not be asked immediately to rate a symptom as “mild, moderate or severe”; this is not a self-rating scale. Rather, the symptom should be explored and rated by the interviewer. First ask the questions for the item. If the rater is unable to clarify a boundary between two severity levels, due to lack of information, it is appropriate to utilize the descriptors for the scale (0-4). For example, after asking all of the questions/probes and getting some response from the patient, the interviewer might ask whether it is more accurate to describe a given symptom as occurring “frequently, with definite interference but still manageable”, or if it is “pre-occupying, with substantial interference”. Similarly, it may be appropriate to ask whether a symptom is “preoccupying, with

substantial interference", or "pervasive, near constant, and incapacitating". If the rater does use the anchor point, the entire response should be read.

Dealing with Response Inconsistencies: In rating items 6 and 7, the interviewer should be alert to inconsistencies. For example, sometimes a subject will describe a symptom from items 1-5 as causing substantial impairment in functioning, but then will report that overall panic disorder symptoms cause only mild or moderate work and social impairment. Also, the subject may have included impairment from other symptoms. This should be pointed out and clarified.

Making Differential Diagnosis: Determine if the anxiety or phobic avoidance, worry or impairment is not better accounted for by another mental disorder. Refer to the manual, as necessary. Recall that there are some types of anxiety, common in panic disorder patients, but not rated by this instrument. Anticipatory anxiety about situations feared for reasons other than panic (e.g. related to a specific phobia or social phobia) is not considered panic-related anticipatory anxiety and is not rated by this instrument. Similarly, this instrument does not rate generalized anxiety. The concerns of someone experiencing generalized anxiety are focused on the probability of adverse events in the future, such worries often include serious health problems in oneself or a loved one, financial ruin, job loss, or other possible calamitous outcomes of daily life problems.

Panic Disorder Severity Scale

1. PANIC ATTACK FREQUENCY, INCLUDING LIMITED SYMPTOM EPISODES

Begin by explaining to the patient that we define a ***Panic Attack*** as a feeling of fear or apprehension that begins suddenly and builds rapidly in intensity, usually reaching a peak in less than 10 minutes. This feeling is associated with uncomfortable physical sensations like racing or pounding heart, shortness of breath, choking, dizziness, sweating, trembling. Often there are distressing, catastrophic thoughts such as fear of losing control having a heart attack or dying. A full panic episode has at least four such symptoms. A ***Limited Symptom Episode (LSE)*** is similar to a full panic attack, but has fewer than 4 symptoms. Given these definitions, please tell me

Q: In the past month, how many full panic attacks did you experience, the kind with 4 or more symptoms? How about limited symptom episodes, the kind with less than 4 symptoms? On average, did you have more than one limited symptom episodes/day*? (Calculate weekly frequencies by dividing the total number of full panic attacks over the rating interval by the number of weeks in the rating interval.)*

0= No panic or limited symptom episodes

1= Mild, less than an average of one full panic a week, and no more than 1 limited symptom episode/day

2= Moderate, one or two full panic attacks a week, and/or multiple limited symptom episodes/day

3= Severe, more than 2 full attacks/week, but not more than 1/day on average

4= Extreme, full panic attacks occur more than once a day, more days than not

2. DISTRESS DURING PANIC ATTACKS, INCLUDE LIMITED SYMPTOM EPISODES

(This item rates the average degree of distress and discomfort the patient experienced during panic attacks experienced over the rating interval. Limited symptom episodes should be rated only if they caused more distress than full panic. Be sure to distinguish between distress DURING panic and anticipatory fear that an attack will occur.)

Q: Over the past month, when you had panic or limited symptom attacks, how much distress did they cause you? I am asking you now about the distress you felt during the attack itself.

How upset or fearful did you feel during the attacks? Were you able to continue doing what you were doing when panic occurred? Did you lose your concentration? If you had to stop what you were doing, were you able to stay in the situation where the attack occurred or did you have to leave?

0 = No panic attacks or limited symptoms episodes, or no distress during episodes

1 = Mild distress but able to continue activity with little or no interference

2 =Moderate distress, but still manageable, able to continue activity and/or maintain concentration, but does so with difficulty

3 = Severe, marked distress and interference, loses concentration and/or must stop activity, but able to remain in the room or situation

4 = Extreme, severe and disabling distress, must stop activity, will leave the room or situation possible, otherwise remains, unable to concentrate, with extreme distress.

3. SEVERITY OF ANTICIPATORY ANXIETY (panic-related fear, apprehension or worry)

(Anticipatory anxiety can be related to the meaning of the attacks rather than to having an attack, so there can be considerable anxiety about having an attack even if the distress during the attacks was low. Remember that sometimes a patient does not worry about when the next attack will occur, but instead worries about the meaning of the attacks for his or her physical or mental

health.)

Q: Over the past month, on average, how much did you worry, feel fearful or apprehensive about when your next panic would occur or about what panic attacks might mean about your physical or mental health? I am asking about times when you were not actually having a panic attack.
How intense was your anxiety? How often did you have these worries or fears? Did the anxiety get to the point where it interfered with your life? IF SO, How much did it interfere?
0 = No concern about panic
1 = Mild, there is occasional fear, worry or apprehension about panic
2 = Moderate, often worried, fearful or apprehensive, but has periods without anxiety. There is a noticeable modification of lifestyle, but anxiety is still manageable and overall functioning is not impaired
3 = Severe, preoccupied with fear, worry or apprehension about panic, substantial interference with concentration and/or ability to function effectively
4 = Extreme, near constant and disabling anxiety, unable to carry out important tasks because of fear, worry or apprehension about panic

4. AGORAPHOBIC FEAR/AVOIDANCE

Q: Over the past month, were there places where you felt afraid, or that you avoided, because you thought if you had a panic attack, it could be difficult to get help or to easily leave? Situations like using public transportation, driving in a car, being in a tunnel or on a bridge, going to the movies, to a mall or supermarket, or being in other crowded places? anywhere else? Were you afraid of being at home alone or completely alone in other places? How often did you experience fear of these situations? How intense was the fear? Did you avoid any of these situations? Did having a trusted companion with you make a difference? Were there things you would do with a companion that you would not do alone? How much did the fear and/or avoidance affect your life? Did you need to change your lifestyle to accommodate your fears?
0 = None, no fear or avoidance
1 = Mild, occasional fear and/or avoidance, but will usually confront or endure the situation. There is little or no modification of lifestyle
2 = Moderate, noticeable fear and/or avoidance, but still manageable, avoids feared situations but can confront with a companion. There is some modification of lifestyle, but overall functioning is not impaired
3 = Severe, extensive avoidance; substantial modification of life style is required to accommodate phobia, making it difficult to manage usual activities

4 = Extreme pervasive disabling fear and/or avoidance. Extensive modification in lifestyle is required such that important tasks are not performed.

5. PANIC-RELATED SENSATION FEAR/ AVOIDANCE

Q: Sometimes people with panic disorder experience physical sensations that may be reminiscent of panic and cause them to feel frightened or uncomfortable. Over the past month, did you avoid doing anything because you thought you it might cause this kind of uncomfortable physical sensations? For example, things that made your heart beat rapidly, such as strenuous exercise or walking? playing sports? working in the garden? What about exciting sports events, frightening movies or having an argument? Sexual activity or orgasm? Did you fear or avoid sensations on your skin such as heat or tingling? Sensations of feeling dizzy or out of breath? Did you avoid any food, drink or other substance because it might bring on physical sensations, such as coffee or alcohol or medications like cold medication? How much did the avoidance of situations or activities like these affect your life? Did you need to change your lifestyle to accommodate your fears?

0 = No fear or avoidance of situations or activities that provoke distressing physical sensations

1 = Mild, occasional fear and/or avoidance, but usually will confront or endure with little distress activities and situations which provoke physical sensations. There is little modification of lifestyle

2 = Moderate, noticeable avoidance, but still manageable; there is definite, but limited modification of lifestyle, such that overall functioning not impaired

3 = Severe, extensive avoidance, causes substantial modification of life style or interference in functioning

4 = Extreme pervasive and disabling avoidance. Extensive modification in lifestyle is required such that important tasks or activities are not performed.

6. IMPAIRMENT/INTERFERENCE IN WORK FUNCTIONING DUE TO PANIC DISORDER

(Note to raters: This item focuses on work. If the person is not working, ask about school, and if not in school full time, ask about household responsibilities)

Q: Over the past month, considering all the symptoms, the panic attacks, limited symptom episodes, anticipatory anxiety and phobic symptoms, how much did your panic disorder interfere

with your ability to do your job, (or your schoolwork, or carry out responsibilities at home?) Did the symptoms affect the quality of your work? Were you able to get things done as quickly and effectively and usual? Did you notice things you were not doing because of your anxiety, or things you couldn't do as well? Did you take short cuts or request assistance to get things done? Did anyone else notice a change in your performance? Was there a formal performance review or warning about work performance? Any comments from co-workers or from family members about your work?

0 = No impairment from panic disorder symptoms

1 = Mild, slight interference, feels job is harder to do but performance is still good

2 = Moderate, symptoms cause regular, definite interference but still manageable. Job performance has suffered but others would say work is still adequate

3 = Severe, causes substantial impairment in occupational performance, such that others have noticed, may be missing work or unable to perform at all on some days

4 = Extreme, incapacitating symptoms, unable to work (or go to school or carry out household responsibilities)

7. IMPAIRMENT/INTERFERENCE IN SOCIAL FUNCTIONING DUE TO PANIC DISORDER

Q: Over the past month, considering all the panic disorder symptoms together, how much did they interfere with your social life?

Did you spend less time with family or other relatives than you used to? Did you spend less time with friends? Did you turn down opportunities to socialize because of panic disorder? Did you have restrictions about where or how long you would socialize because of panic disorder? Did the panic disorder symptoms affect your relationships with family members or friends?

0 = No impairment

1 = Mild, slight interference, feels quality of social behavior is somewhat impaired but social functioning is still adequate

2 = Moderate, definite, interference with social life but still manageable. There is some decrease in frequency of social activities and/or quality of interpersonal interactions but still able to engage in most usual social activities

3 = Severe, causes substantial impairment in social performance. There is marked decrease in social activities, and/or marked difficulty interacting with others; can still force self to interact with others, but does not enjoy or function well in most social or interpersonal situations

4 = Extreme, disabling symptoms, rarely goes out or interacts with others, may have ended a relationship because of panic disorder

Appendix 2: Reflective Functioning Interview:

1. A. Can you tell me about one of your parents? What is that parent like?

B. How do you think your relationship came to be that way?

2. A. Can you tell me about your relationship?

B. Do you have any thoughts about how your relationship came to be that way? (*Alternative form of question: …about how these conflicts and problems developed? …about how it came to be such a close relationship?*

3. Can you tell me about a specific memory of that relationship or about that parent from childhood? (ages 5-12?)

4. Can you tell me how this relationship has changed over time? (*Ask why it has changed if they don't address this in their answer.*

5. Can you tell me what impact this parent has had on your life?

6. Can you tell me why you chose to talk about this parent?

Appendix 3: Panic Specific Reflective Functioning Interview:

1. Why do you think you have panic attacks?

2. Have you ever noticed that you get more panic episodes when you are upset about something? If they say yes, ask what they might be upset about?

3a. Do you have any ideas about how being upset about these things might connect to your panic symptoms?

3b. Do you notice any pattern at all as to when you might get your attacks?

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