

REFLECTIVE-FUNCTIONING DURING THE PROCESS
AND IN RELATION TO OUTCOME IN
COGNITIVE-BEHAVIORAL THERAPY,
INTERPERSONAL PSYCHOTHERAPY AND
BRIEF PSYCHODYNAMIC PSYCHOTHERAPY

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ABSTRACT

The objective of this work was to investigate reflective-functioning (RF) as a measure of process in two independent studies that included three types of brief psychotherapy. RF is defined as the ability to recognize the existence and nature of mental processes taking place in the self and in others (e.g., intentions, beliefs, desires, and wishes). Theorists have suggested the ability for RF is crucial for predicting social causality and low RF has been found related to mental disorders. It has recently been suggested in the literature that improved ability for RF might be an important component of successful psychotherapy outcome, especially with respect to achieving structural change. RF was in this work investigated during the process through discourse analysis of the patients' narratives of self-other interactions in the treatment sessions. The Psychotherapy Process Q-set (PQS) was implemented in order to isolate specific components of the process (process correlates) that identified high and low RF and to investigate the links between the process correlates and outcome. The first study investigated 29 cases of cognitive-behavioral therapy (CBT) and 35 cases of interpersonal psychotherapy (IPT) with an average treatment length of 16.2 sessions in a sample from the National Institute of Mental Health (NIMH) randomized clinical trial Treatment of Depression Collaborative Research Program (TDCRP). The sample in the first study consisted of 128 sessions in total, were one session from the early part (on average the 4th session) and one session in the later part of the treatment (on average the 12th session) were rated for RF. The second study investigated a sample of 30 cases of brief psychodynamic psychotherapy (BPDT) with an average treatment length of 15.8 sessions in a naturalistic design and obtained from the Mount Zion Psychotherapy Research Group. In total, the second study included 90 sessions of BPDT, and RF was assessed during the 1st, the 5th, and the 14th session of each treatment. The results from these two studies suggested that the patients' ability for RF, as measured through the discourse from therapy sessions, is stable (in CBT and BPDT) or decreased (IPT) during the treatments. Furthermore, the process correlates defining high RF had a relation with good outcome, and process correlates defining low RF had a relation with poor outcome. The process correlates identified during the PQS-analysis suggested that both high and low RF was linked with personality characteristics in the patients. For example, high RF was linked to patients' ability for introspection, expression of negative emotions, and commitment to treatment. Low RF was linked to patients' expression of passivity, defensiveness, and suspiciousness. This work supported theorists' suggestions that brief treatments are supportive in their nature and therefore do not promote structural changes (e.g., changes in RF). It is suggested that the ability for RF as assessed pre-treatment might be a useful predictor for success in brief psychotherapy and could therefore be used as a patient inclusion criteria for such treatments.

Key Words: Mental processes, Reflective-functioning, Cognitive-behavioral therapy, Interpersonal Psychotherapy, Psychodynamic Psychotherapy, Psychotherapy Process Q-set, PQS, TDCRP, Psychotherapy outcome, Personality.

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Reflective-functioning during the process and in relation to outcome in Cognitive-behavioral Therapy, Interpersonal Psychotherapy and Brief Psychodynamic Psychotherapy

Roger Karlsson

INTRODUCTION

This present work is an attempt to study a phenomenon that has intrigued me during my entire career as a psychotherapist and researcher: the understanding of mental processes and whether increases in this understanding can stimulate change in treatments. This work starts with a few examples to illustrate how the understanding of mental processes can have great significance in clinical practice (all the case material has been slightly modified in order to ensure the confidentiality of the patients). Next, an overview of the theoretical field will be provided, where the concept of reflective-functioning, a measure of the understanding of mental processes, will become the focus. In the overview of the theoretical field, the concept of reflective-functioning will be compared and contrasted with similar to concepts from other strains of thought in psychology, cognitive science, and philosophy. Subsequently, two studies of brief psychotherapy will be presented, where the development of the understanding of mental processes during the treatments is the focus of investigation. In addition, the psychotherapy process will be studied with the intention of identifying specific components of the process that are related to reflective-functioning, and investigating whether or not these components are related to outcome.

Clinical Examples

Mental processes in psychotic individuals

Most likely, all psychotherapists have observed sudden shifts in their patients' discourse regarding how they think about themselves and others and/or how they relate to the notion of mental processes. It can then be observed how a patient, who might otherwise be severely psychotic, suddenly shows greater understanding regarding his/her symptoms, interpersonal relations, and/or existential situation. For example, a patient referred to here under the pseudonym "Mr. Sven" suffered from chronic paranoid schizophrenia. He experienced delusions and hallucinations of such severity that he could not maintain a conversation about any other subject besides his perceived persecution by death-beam blasting spy-satellites up in the sky, and the buzz of accusatory voices and immoral thoughts that he felt invaded his mind (also see Honos-Webb, Sunwolf, & Shapiro, 2004, who have written about this case from the perspective of story-telling in psychotherapy). At the onset of the treatment, he was homeless, destitute, had poor hygiene, and had the appearance of a mountain man with wild hair and untrimmed beard. He was, until he engaged himself in the psychotherapy, committed to mental institutions against his will on a regular basis, and he refused participation in any outpatient programs after discharge.

Mr. Sven was extremely difficult to have in treatment. He frightened the other patients in the waiting room by often talking back to his voices in an aggressive manner, and there were occasions when he would physically assault other persons because he perceived them to be "implanting" immoral thoughts in his mind. In addition, he always wore, until the very last

year of therapy, a bulletproof vest as a defense against the death-beams from the satellites. His vest also tended to generate some worries in his more anxious peers. He was refractory towards antipsychotic drugs, and he wouldn't accept any traditional psychotherapeutic interventions. Instead, he demanded my silence during the sessions. If I tried to conduct any traditional psychotherapeutic work, he would leave my office in the middle of the session and I couldn't be sure if he would come back. After a few such attempts, where he did luckily come back, I decided to conduct my treatment in accordance with his wishes. Using my best clinical judgment, I decided there was no point in risk destroying his only remaining interpersonal link with the possible result of escalating his psychosis and increasing the risk of random physical violence (see discussion in Karlsson, 2004, how psychotic individuals tend to be very sensitive to separations, physical or emotional, and how such separations often results in defense reactions in the form of massive projective identifications that intensify the psychosis). My objective as a therapist in such a situation could be summarized as trying to contain his psychosis by providing a consistent environment where he felt comfortable, safe, and heard.

He came to our sessions diligently every week on time because he considered my office the only safe haven he had in that it lacked the voices and death-beams that haunted him in his daily life. His own theory about why my office provided him temporary relief was that I had built an "electro-magnetic cage" in the walls of the room that protected him against the satellites and voices (see further elaborations of how a consistently utilized psychoanalytic frame can be experienced as a protective shield against psychosis in Karlsson, 2004).

An illustration of a developmental shift in the understanding of mental processes

In the middle of his experience of chaos and death-threats, and after years of psychotherapy, Mr. Sven suddenly asked me whether I believed what he told me during our sessions was true. Considering the fact that Mr. Sven exhibited strong resistance towards having me engaged in any verbal communication during the treatment, it stunned me that he would ask for my opinion in such a straight forward manner. I realized that I faced quite a dilemma in that my answer would be crucial for the future development of the therapy. If I told him that I believed him, I was colluding with his psychotic world in a manner that might become problematic over time. On the other hand, if I told him that I believed he suffered from severe hallucinations and delusions, the treatment would have been terminated instantly.

I had noted that Mr. Sven had been a man of great political influence and financial stature before his sudden mental breakdown in his 50s, e.g., being the president and owner of a successful mid-sized business with many employees, and then living the lavish life-style of the rich and famous. Hence, he was a man who was not used to accepting no for an answer and had previously terminated his relationships with numerous mental health workers because he felt they couldn't understand him or didn't treat him with the respect he deserved.

After some deliberation, I answered Mr. Sven that I did believe he was a man who suffered immensely every day, and who often felt like there was not much hope left for him, which was the sad truth in this matter. Mr. Sven exploded in a big grin and said that I really knew how life was for him (he actually became so excited by my answer that I thought for a moment he would come over and try to hug me). He said that knowing that I believed in him gave him strength to sustain another day, but if I didn't believe in him it meant that he had nothing left. Knowing that Mr. Sven's social world was empty because he had scared every loved one away by accusing them of being key-players in his bizarre paranoid system and that I was the only person he talked with regularly at any length, I was both stunned and touched by how Mr. Sven could so suddenly, and in a such surprising manner, exhibit an understanding of reality and his own needs.

After he felt assured by my answer to his question, he continued to talk about his experiences of terror but with a little smile on his face. I realized in retrospect that although the content of Mr. Sven's narratives remained the same, something crucial took place during that day. After this, Mr. Sven showed up to therapy calmer, less haunted, and more open to my comments and he continued, throughout our 5-year weekly psychotherapy, to show sudden shifts in mental functioning that would occur with increased frequency. For example, he would occasionally stop describing his persecutory horrors in an abrupt manner during a session, and instead ask me how I was doing, worrying that my work as a psychotherapist would wear me down emotionally due to all the "crazy" people I had to deal with in my practice. This could be seen as a sign of how he, at times, had an ability to integrate his internal objects enough to touch upon some of the depressive anxiety and reparation that Klein (1975/1993; see also Segal, 1956/1981; and Steiner, 1993) identified as part of the depressive position, and how he then could show some understanding of other's minds on a more reality-based level.

The concept of "dreaming" as a sign of recovery in the understanding of mental processes

Interestingly enough, Mr. Sven's progress in understanding mental processes could also be observed in his attitude towards dreams. Dreams are interesting from this perspective in that they are mental products that can be experienced as "real" and not products of the mind (see Freud, 1900/1955). For example, Bion (1967) stated that a psychotic individual can't dream. Thus, what I think Bion referred to was that the concept of "dreaming" requires both an understanding that there is a dreamer (your own mind) that produce these experiences and that these experiences are not singular manifestations from the external world. Psychotic individuals do not perceive their own mental processes, such as dreams, as their own, but as imposed from the outside. The notion of "dreaming" therefore requires quite an advanced understanding of mental processes in a psychotic individual. Also, in dream analysis you must be able to work under the assumption that the dreamer is your unconscious mind and the dreamt material is produced with the intent to communicate something to the conscious mind (see e.g., Grotstein, 2000), which demands an even more sophisticated understanding of mental processes.

In Mr. Sven's case, he would comment in the beginning of treatment: "If I dream? I don't dream. It is the same thing when I am awake and when I am asleep... I am always tortured and they never leave me alone." Mr. Sven's opinion about dreams in this case is stunningly similar to Freud's (1900/1955) famous statement that a psychosis is like dreaming while you are awake. However, as the treatment progressed he would say a year later: "I had a dream last night. I was walking down the street... Nothing really happened in the dream. It was the same thing as when I am awake..." In this narrative it is clear that Mr. Sven's attitude towards dreams had changed. He now acknowledged that dreams are "dreamt" by the mind, but he still persisted in thinking that dreams and being awake produce the same kind of sensory experience (however, notice that the experience of torture had vanished and the dream had an emerging depressive quality of emptiness). Finally, after another year in psychotherapy, Mr. Sven not only acknowledged dreaming as a mental process but also engage himself at times in regular dream analysis, at least temporarily convinced that dreams contained important clues that could explain his paranoid thought processes during daytime.

The understanding of mental processes as an indicator of competent motherhood

Sometimes these shifts in mental processes can result in a substantially larger empathic attitude towards loved ones that has dramatic effects on the patient's ability to provide care for a

significant other. For example, Ms. Sigrid is a pseudonym for a young single mother suffering from postpartum chronic paranoid schizophrenia. Her biggest fear was that the social authorities would take her 6-year-old son away from her. This was actually a realistic fear considering that she presented quite a vivid system of delusions and hallucinations in her psychosis. The hallucinations could include that she saw the staple-remover in my office as the fangs of a bloodthirsty wolf that would attack her, or that she saw containers of blood in my office from patients that I had killed. She also heard voices blaming her for the imminent end of the world. Her delusions included her thoughts that she had written all songs that were played on the radio without receiving any royalties, which she claimed resulted in her living an unfair life in poverty, and that Satanists kidnapped her during her sleep each night to conduct experiments on her.

Although she struggled hard to be a good mother and realized the necessity of providing a good social environment for her son, her psychosis impeded her from providing such for more than short periods of time during the first years of psychotherapy. Fortunately enough, her parents were willing to bolster Ms. Sigrid's temporary limitations in motherhood by taking care of her son until she had gain sufficient mental stability. During the onset of the therapy, they were almost completely responsible for the care of the son because Ms. Sigrid had developed many of the negative symptoms of schizophrenia; she would spend her days alternating apathetically between sleeping and smoking cigarettes excessively. The psychotherapy fluctuated distinctly during the years between focusing on interpretative and supportive techniques. At times, she would like to spend the sessions talking about how to be a sufficient mother. Sometimes she would even bring her son to the sessions, wanting me to provide her with concrete guidance in how to show her son the love and care she felt he was entitled to receive from his mother. Ms. Sigrid's unusual devotion to motherhood, despite her mental disorder, warmed my heart, and I willingly admit that she managed to pull me out of my neutrality and make me wish she would succeed, which I actually think was necessary in order to provide her with the support she needed.

Over the years of therapy she made substantial progress, e.g., she started to work part-time, quit smoking, started to exercise regularly, and became a patient and devoted mother. She was, however, still worried that she was not attentive enough to her son and started to fear that her psychosis might have had a nefarious effect on her sons' mental development. Although her son appeared to be a healthy little lad that talked a lot and loved his mother dearly but still didn't refrain from picking a fight with her when he deemed it necessary, I thought that meeting a child psychotherapist a few times might be an adequate preemptive measure. Ms. Sigrid reacted strongly against my suggestion, saying angrily: "I will not allow my son to see a psychotherapist. He will sit there and badmouth me for years. He will describe me as a horrible mother and I won't even be able to be there and defend myself..." I decided to investigate whether Ms. Sigrid's shown empathic skills during motherhood could be extended to a deeper understanding of the necessity to process intergenerational issues to obtain mental health: "Yes, I understand you are reluctant to give your son the same chance you had in meeting someone to discuss how you felt about your parents. We both know it has also been hard for your parents while you have met me and discussed the problems you have had with them..." Ms. Sigrid left the session very angry with me, quite expressive about that she felt I didn't understand her situation and how afraid she was that she would lose her son. However, when she came back the following week something had happened: "I have called a child psychotherapist and I will drive my son there tomorrow. I have talked to the social worker and she said that the clinic can pay for the treatment..." When I asked her what made her change her mind, she said that she couldn't be selfish and put her own needs before her

son's needs. She stated that the most important of all for her was that he had a chance to grow up healthy, even if that meant that she had to accept that he would discuss less flattering aspects of her behaviors with a psychotherapist.

Thus, Ms. Sigrid's son started in psychotherapy and she drove him there promptly each week and continued to discuss her fears of losing him with me. However, her fears were then not only based on the possibility that the social authorities would take him away but also on the possibility that he would grow up and chose to not affiliate himself with her when he developed a more complex understanding of his mother's mental disorder. Thus, just as was suggested with Mr. Sven, Ms. Sigrid developed over time signs of depressive anxiety, reparation attempts, and guilt that Klein (1975/1993) argued were parts of the depressive position.

When we terminated the treatment after 4 years, Ms. Sigrid's son had become a strong 10-year boy with a pleasant manner. He would sometimes choose to accompany his mother to her therapy to tease and joke around with her therapist. It was obvious that he understood his mother had some limitations due to her mental disorder, but it was possible to recognize his love for his mother by observing the gentleness with which he interacted with her. Ms. Sigrid was on the other hand so proud of her son that she blushed and her eyes started to sparkle when she saw him joke around with me. She often expressed to me her sorrow in not being able to be there for him during the very first years as she considered being a mother the most wonderful thing she had ever experienced.

The understanding of mental processes in non-psychotic individuals

These kinds of shifts in the understanding of mental processes are, of course, not unique to my own practice as a psychotherapist. For example, Bion (1967) provided classic case illustrations describing how even patients with very bizarre forms of psychosis are never completely out of touch with reality. In fact, these kinds of shifts in mental processes are of course not even unique in patients with psychosis; they can be observed in non-psychotic patients as well. For example, such changes could be observed in the treatment with Mr. Erik (also a pseudonym); a deeply religious patient with bipolar depression in remission and an antisocial personality disorder. Mr. Erik had only displayed manic episodes on a few occasions, several years ago. At the time, the episodes resulted in a violent crime spree, but I had never observed him in a regular manic psychosis. During one of many similar therapy sessions, he was complaining in a very vulgar and aggressive manner about the staff at his psychiatric unit. He described them as being stupid, fat, ugly, incompetent, and unworthy of being in any position of authority over him. The tension in the room was rapidly escalating as the narrative went around in contemptuous circles. I realized that I had to intervene to stop the increasing cycle of manic defences so I presented the following intervention: "Well, there are indeed stupid people and smart people. There are also beautiful and ugly people as well as fat and slender people. I don't doubt that you will find all kinds of them in the staff. But hey, do you know what they say? They say that they all are created by god and he loves them all..." During my speech, Mr. Erik's face changed from tense, aggressive and scornful into looking bewildered, followed by a big smile until he finally burst out in laughter: "Well, you got me there Doc! I don't know what to say now. It is hard to remain angry when you put it that way..."

Thereafter, he would still occasionally exhibit anger towards the staff, but he would always, somewhere in his discourse, add the sentence "...but I know they are god's children and he still loves them despite their flaws" and his anger never got out of hand as it used to do. Thus, the patient suddenly exhibited a shift in both his emotional state as well as in the level of integration of his object representations. From being hateful and contemptuous, he could laugh at his previously shown outrage and, later, he managed to use his religiosity as a means to

accept the shortcomings of the staff and use it as a “mental glue” that would hold together the object representations even when he experienced strong negative affects. As will be described below, this “mental glue” has been conceptualized by Peter Fonagy and his research team at University College London as “reflective-functioning” (e.g., Fonagy, Gergely, Jurist, & Target, 2002; Fonagy, Target, Steele, & Steele, 1998). The interaction with Mr. Erik could perhaps also be described theoretically in Sterba’s (1934) notion of how a successful treatment might require a dissociation of the ego into an observing part and an experiencing part (which I suggest was the consequence of my intervention), followed by an integration of the two parts of the ego during an insight (which I think Mr. Erik showed with his laughter and following comment).

Applying clinical meaning in psychotherapy research

The purpose of discussing the three clinical cases above was to provide concrete examples of how the development of the understanding of mental processes appears to be a crucial component of psychotherapy process and outcome. However, studying clinically meaningful concepts in psychotherapy research creates certain challenges. What Frank (1961) observed almost 45 years ago still holds true today: psychotherapy research easily ends up in one of two extremes. One tradition of researchers is concerned with all levels of human functioning and communication. This creates difficulties in conceptualizing the phenomena under investigation and risking them becoming intangible so they have resorted to metaphors, left major ambiguities unresolved and formulated hypotheses in terms that cannot be subjected to systematic testing (Frank, 1961). However, the other extreme conceptualizes small segments of the field with sufficient precision to permit experimental testing of hypotheses, but at the cost of achieving rigor at the expense of significance (Frank, 1961). Frank (1961) eloquently captured the dilemmas by describing the destiny of the first tradition similar to the Viking god Thor who tried to empty a small goblet only to discover that it was connected to the sea and, thus, could never be completely drained. He then compared the second tradition to the drunkard who lost his keys in a dark alley but looked for them under the lamp post because the light was better there.

The faith of a clinically practicing psychotherapy researcher then becomes similar to Homer’s description of Odyssey’s task when he passed the Strait of Messina and had to steer his ship clear between the monster at Scylla and the whirlpool at Charybdis. The crucial question becomes how to conduct research that both provides systematic inquiry and produces findings that are relevant for the real clinical practitioner (e.g., Jones, 1995, 2000). My own thinking in this matter has been particularly influenced by two strong minds in the group of contemporary psychoanalytically oriented researchers. One such strong influence has been my late research advisor at U C Berkeley, Enrico E. Jones, who was a tour de force in clinically meaningful research of psychotherapy process and how the process affects the outcome. The second strong influence has been Peter Fonagy’s endeavor in synthesizing the century-long accumulated knowledge generated in psychoanalysis with modern advances in attachment theory, the theory of mind literature, and cognitive science. This work represents an attempt to integrate my own clinical experience with the process research tradition generated by Enrico E. Jones and the painstaking synthesis of psychoanalytic theory and empirical research that Peter Fonagy has provided.

The understanding of mental processes conceptualized as reflective-functioning and its relations with similar psychological constructs

Psychotherapy researchers continue to struggle with the question of how to define psychological change and what constitutes an effective treatment. Comparative studies of different schools of psychotherapy repeatedly support the “Dodo bird hypothesis”, which suggests that all treatments are equally effective (Luborsky, Singer, & Luborsky, 1975; see also Wampold, 2001). However, over time, such studies have been criticized for relying primarily on symptomatic measures to define change, while overlooking more fine-tuned changes in mental processes (Roth & Fonagy, 1996; see also Gladis, Gosch, Dishuk, & Crits-Christoph, 1999). On the other hand, quality measures of mental processes that are fit for use in psychotherapy research are lacking (Roth & Fonagy, 1996).

Recently, Fonagy and his colleagues have developed the reflective-functioning scale, which attempts to measure mental processes (Fonagy et al., 1998). Fonagy (1999) defines reflective-functioning (RF or mentalizing) as the ability to recognize the existence and nature of mental processes taking place in both the self and in others (e.g., thoughts, feelings, desires, intentions, and wishes). This ability guides the individual in forming coherent and integrated mental representations of the self and the other. Fonagy postulates that one’s level of RF plays a central role in our ability to predict and explain the behavior of ourselves and others, and, thus, is promoting the understanding of social causality (Fonagy et al., 1998).

Researchers in many disciplines of science have expressed interest in mental processes and have promoted concepts that essentially converge with Fonagy’s concept of RF. For example, in the philosophy of the mind literature, Dennet (1987) argued for the notion of an intentional stance, defined as the ability to treat an object (e.g., another human) as if s/he has a mind and therefore has intentions. Mental processes are also implied in the notion of folk psychology, or theory-theory, which is championed by many philosophers and cognitive scientists (e.g., Gopnik & Meltzoff, 1997; Lewis, 1972). Folk psychology theorists claim that our everyday understanding of mental states constitutes a theory of mind, where we make interpretations that link sensory experiences to mental states, mental states to other mental states, and mental states to behavior.

Reflective-functioning possesses many similarities with the concept of metacognition, although RF is not limited to cognitions. For example, Flavell (1979) refers to metacognitive knowledge as acquired knowledge about cognitive processes, knowledge that can be used to control and monitor cognitive processes. Developmental psychologists often assess metacognition in children by using various experimental tasks that require the child to consider another person’s perspective (e.g., Flavell, 1979). A central aspect of metacognition is the appearance-reality distinction. Without a distinction between appearance and reality, the subject is not able to imagine that some propositions are, in fact, void of all validity (e.g., not understanding that they might have false beliefs or have had false beliefs in the past; see Flavell, 1979). More recently, Main (1991) suggested in her seminal paper that an infant’s ability for metacognition might guide his/her experience of the attachment relationship with the primary caregiver and that there is a relation between secure attachment and a well developed ability for metacognition. Subsequently, attachment researchers have begun to assess metacognition in adults through discourse analyses of narratives (e.g., Main, Goldwyn & Hesse, 2003).

In the past century, psychoanalysts have described similar aspects of mental processes in their patients. For example, Flavell’s (1979) appearance-reality distinction is comparable with Freud’s (1911/1958) notion of primary and secondary process thinking, or Segal’s (1955/1988) theory of symbol formation vs. symbolic equation. Perhaps the best way to explain the concept of RF in psychoanalytic terminology would be to perceive RF as the

mental process that helps integrate and synthesize self and object representations, which often can be observed through developmental shifts in mental functioning (see e.g., Fonagy, 1999; Karlsson, 2004; Steiner, 1993). Thus, a low level of RF would facilitate the paranoid-schizoid position, which is characterized by part object relationships, splitting, and defensive utilization of projective identification. Conversely, a high level of RF would be evident in the depressive position, which is characterized by whole object relationships, repression, guilt, and reparation attempts (e.g., Klein, 1975/1993).

The relation between reflective-functioning and some similar measures in psychotherapy research

There are many established measures in the field of psychotherapy research that, although similar to RF, are also different in some important ways. For example, psychological mindedness is a related concept that features a more elusive conceptualization, e.g., it has been equated with insight, introspection, intraception, self-awareness, self-reflection, and the capacity for self-observation (McCallum & Piper, 1997). Also, in contrast to RF, which has consistently been measured through discourse analysis, psychological mindedness has been measured with a wide array of methods, e.g., self-report, questionnaires, appraisals based on clinical interviews, and by combination scores from conceptually related variables (McCallum & Piper, 1997). Perhaps the most marked similarity between psychological mindedness and RF can be found in the work by Barry Farber (e.g., Farber & Golden, 1997), where the definition of psychological mindedness includes the understanding of intentions in both the self and others in respect to both cognitions and emotions (most studies of psychological mindedness focus on self-knowledge). However, Farber and his coworkers are using self-report questionnaires to measure the construct, which is different from discourse analysis.

Reflective-functioning also resembles empathy in the sense that both concepts include the attempt to try to understand what it means to be the other person (Rogers, 1980). However, Carl Rogers' definition of empathy overemphasizes the emotional over the cognitive aspects and de-emphasizes the reflection upon how one's own values and attitudes affect the other person, and the interaction with that person (Rogers, 1980). Also, the Buddhist concept of mindfulness holds similarities with RF. Mindfulness has been defined as directing attention in order to become aware of one's mental processes and how they take place in the present moment. Thus, we become aware of the habitual ways in which we structure our experience, and we understand that the structure is constructed by the mind and is not the same as reality (e.g., Hayes, Follette, & Linehan, 2004; Safran & Muran, 2000; Segal, Williams, & Teasdale, 2002; Teasdale, Segal, Williams, Ridgeway, Soulsby, & Lau, 2000; see also Kabat-Zinn, 2003). The participants in mindfulness training learn to observe their thoughts and feelings in a nonjudgmental fashion and to treat them as mental events that come and go. Such training might include facilitating a detached or decentered view of one's thoughts by promoting statements such as "thoughts are not facts" or "I am not my thoughts" but could also be applied to emotions or bodily sensations (Segal et al., 2002; Teasdale et al., 2000). Mindfulness in this definition also has a strong resemblance to the Gestalt therapy tradition promoted by Fritz Pearls, emphasizing the here and now, awareness of the now, staying with feelings etc. (e.g., Pearls, Hefferline, & Goodman, 1951/1980) and some researchers have suggested that mindfulness might be related to Freud's (1912/1953) concept of even-hovering attention (Beitel, Ferrer, & Cecero, 2004). However, mindfulness and RF are not overlapping constructs. While mindfulness primarily focuses on the awareness of the mental processes within the self, RF equally emphasizes the understanding of mental processes in others. In addition, in contrast to the focus of the present time in mindfulness, RF also includes the

understanding how divergences and convergences in mental processes between the self and the other affect the interpersonal interaction in the past, present time, and perhaps also in the future.

RF has also some resemblance with the concept of insight. Freud described the goal of psychoanalysis as obtaining insight into the dynamics and contents of the unconscious, e.g., how unconscious conflicts are expressed in symptoms. An increasing level of insight would result in more ego-strength and better reality testing. Perhaps this was best described in his famous quote: "Where id was, there ego shall be." (Freud, 1933/1964, p. 80) However, while both RF and Freudian insight share the goal of obtaining a better understanding of the unconscious, RF is a concept limited to the understanding of self-other interactions while the Freudian conceptualization is broader and might include the understanding of dreams or symptoms. In fact, the clear and more specific conceptualization of RF might make it more appealing for systematic empirical research than insight, although there are methods developed in how to study insight during treatments (see e.g., Crits-Christoph, Barber, Miller, & Beebe, 1993)

Assessing reflective-functioning in psychotherapy

The reflective-functioning scale was originally constructed to rate narratives describing self-other interactions in transcripts from the Adult Attachment Interview (AAI; Main et al., 2003). The reflective-functioning scale is operationalized on a level from -1 to 9. The higher the number, the more advanced the mentalizing (Fonagy et al., 1998). An ordinary population is expected to be capable of mentalizing at a mean level of RF 5. Although high RF could result from a fairly elaborate narrative on self-other interactions, ordinary RF does not need to be elaborate. Moderate to high RF might include characteristics such as (1) An awareness of the nature of mental states; (2) An explicit effort to tease out mental states underlying behavior; (3) Recognizing developmental aspects of mental states; and (4) Recognizing mental states of the interviewer (Fonagy et al., 1998). On the other hand, low RF might include characteristics such as (1) The rejection of mental states; (2) Unintegrated, bizarre or inappropriate awareness of mental states; (3) Distorted or self-serving understanding of mental states; (4) Naïve or simplistic awareness of mental states; and (5) Overly-analytical or hyperactive usage of RF (Fonagy et al., 1998). Although the RF scale was developed to rate narratives from the AAI, Fonagy, Steele, Steele, Moran, and Higgitt (1991) suggested that the RF scale may be applicable outside the scope of the AAI.

The following is a fictitious example of how high RF could be expressed in psychotherapy. The patient discusses a dinner engagement that she had with her parents earlier in the week, thus, a significant self-other interaction involving the primary attachment figures:

I was so mad at them for bringing up this issue again about my boyfriend. I think they have no right to intrude into my private life and start up a fight with me like this. I understand completely that parents are probably always worried about their children and that they have a hard time sitting back and just letting it happen when they think their child is about to make a mistake. But that doesn't mean it is right! I mean, I am 35 years old... I have the right to make mistakes sometimes. My mother always thinks my boyfriends are not good enough for me, but that is her opinion based on her own anxiousness and does not mean that it is true. I was so mad at them, but now afterwards I feel guilty for yelling at them and I feel sad that they can't accept me as an adult. I guess I also contribute to their behavior by allowing them to supply me with money. They probably then feel worried about me and think that I can't take care of myself.

In this fictitious example, the patient demonstrates a well-developed sense of what is present in the minds of her parents and herself. Hence, she is highly aware of mental states and, consequently, exhibits a high level of reflective-functioning. For example, she realizes that although her parents communicated with her in an intrusive and aggressive manner, they are in fact concerned for her wellbeing. She can also, in addition, perceive that her parents possess certain mental constructs that influence how they behave (e.g., being worried for their child despite her status as an adult). Thus, she attempts to tease out mental states' underlying behaviors and perceives a difference between appearance and reality in respect to the emotions of her parents. In other words: she can appreciate that there might be a difference between how a person construes reality and the objective properties of reality. She also recognizes the existence of several emotional states inside of her own mind and acknowledges that she has changed her emotional state since the dinner (these are further examples of a developmental understanding of mental states). Finally, she feels that she might encourage her parents' behavior by accepting money from them, which would be rated as another attempt to tease out mental states that are underlying behaviors.

The following fictitious example will demonstrate the reasoning in an individual with a low level of reflective-functioning. The same self-other interaction (a recent dinner with the patient's parents) is used as the starting point for the discussion in order to elucidate comparisons with high RF:

*I was so mad at them for bringing up this issue again regarding my boyfriend. I think they have no right to intrude into my private life like this and start up a fight with me. Why can't they stop treating me like a child? Why can't they accept the fact that I am 35 years old now, and I'm not their little baby anymore? I told my mom that she could f*** off and she started to cry. I think she had it coming. I am sick and tired of her involvement in my life. She is crazy. Borderline personality is probably a better name for her than calling her "mom." She obviously has nothing better to do with her life than harass me! No matter who I meet she claims that there is something wrong with them! Thank god they at least give me money when I visit them. That is the least they can do to make up for their harassment!*

In this example, the low level of reflective-functioning can be assessed based on the fact that she shows no sign of understanding that her parents may have other intentions beyond attacking her and making her feel bad. Although she recognizes that she felt angry, and she links that mental state to the discussion of her boyfriend, she still exhibits a low level of RF. For example, she shows no reflection upon her own mental states except that she is "mad." Although she suggests her mother suffers from borderline personality disorder, the diagnosis is not used as an effort to understand her mother's state of mind but is instead used as a pejorative label that allows her to further justify her anger. Additionally, there is no recognition of the mother as a person who has beliefs, desires, or intentions that are different from the patient's idiosyncratic interpretation of the situation. For example, in contrast to the previous speaker, the mother's behavior is not seen as a product of mental states such as concern over her child. Instead the person interprets the whole interaction as being based on her own negative emotions, which were elicited during the interaction. Hence, she is exhibiting a self-serving understanding of mental states in which the presence of other minds is not taken into account and the parents are only viewed as being aggressive and intrusive.

Validation of the reflective-functioning scale

The reflective-functioning scale has good inter-judge reliability ($r = .89$) and has been extensively validated in research (see overview in Fonagy et al., 1998). For example, associations have been established between RF and mental health, including the understanding of psychiatric disorders as rifts in mentalizing (Fonagy et al., 1995). The level of RF could differentiate psychiatric patients from a control group in a sample of 82 non-psychotic inpatients matched with the control group of 85 participants in age, gender, socio-economic status and verbal IQ (Fonagy et al., 1996). The mean RF in the psychiatric group was 3.7 (SD = 1.8) and the mean RF in the control group was 5.2 (SD = 1.5) (Fonagy et al., 1996). Moreover, research has shown that hospitalized depressed patients have a lower RF than a matched control (Ivarsson, Gillberg, & Broberg, 1998). It has also been shown that patients with a borderline personality disorder have a significantly lower level of RF than a matched comparison group (Fonagy et al., 1996). Research has suggested that a low level of reflective-functioning could be a consequence of early trauma, but is also responsible for perpetuating the experience of the trauma, a process that is particularly prominent amongst individuals with borderline personality disorder (Fonagy et al., 2002).

The rationale for studying reflective-functioning in psychotherapy

As the research findings described above demonstrate, there is a relation between mentalizing and mental health. Conversely, there is no research showing whether RF prevents the development of mental disorders or if mental disorders prevent the development of RF. However, if mentalizing works as an inoculation against mental disorders, teaching the ability to mentalize would presumably be a valuable preemptive mental health measure. Although there is no validated technique in how to teach someone to mentalize as of yet, there is a long-standing tradition amongst psychotherapists who claim that good outcome is related to the growth of various mental skills that resemble mentalizing (e.g., insight, mindfulness, psychological mindedness, and more empathy). For example, there is an increasing body of research suggesting that increases in mindfulness is reducing stress, increasing the quality of life (Shapiro, Astin, Bishop, & Cordova, 2005) and can prevent relapses in patients with depression (Segal et al., 2002). Considering that psychotherapy is supposed to promote mental health, the assessment of mentalizing during psychotherapy might constitute an added dimension in how to understand improvement throughout treatment.

This present work, which includes two independent studies, is one of the first attempts to apply the RF scale in psychotherapy process and outcome research (see also previous work in the same project: Karlsson & Jones, 2000, 2001, 2002). However, working in conjunction with this study, Bernbach, Muran, Slade, and Tuber (2000) investigated the development of RF during the process in 30 sessions of Brief Relational Therapy (Safran & Muran, 2000). Their study focused on changes in RF during ruptures in the therapeutic alliance, which were assumed would increase the patients' awareness of mental states. Their sample included 10 therapeutic dyads with good outcome and 10 therapeutic dyads with bad outcome. They rated RF from both videotapes and session transcripts in 3 pre-selected sessions from each treatment that had previously been identified as containing therapeutic ruptures by either the patients or the therapists. Bernbach et al. (2000) found that RF decreased during the process in patients with good outcome, and remained stable in patients with poor outcome. Bernbach et al. (2000) suggested that the decline in RF with good outcomes could be related to termination issues. Also, they discussed whether their focus on exclusively examining sessions with ruptures in therapeutic alliance might have been problematic.

In another study, Brin Grenyer and Jane Middleby-Clements (Middleby-Clements, 2003) investigated RF as an outcome measure of 36 patients with cannabis dependency randomized to either 16 session supportive-expressive psychodynamic psychotherapy (Luborsky, 1984) or control group condition (self-help intervention). Despite the small sample size, they found a statistical trend ($p < .07$) comparing pre and post assessments of RF, supporting that patients in treatment increased their RF in comparison to control group. Grenyer and Middleby-Clements also found a higher RF in patients with good outcomes. They concluded that the findings supported the notion of RF as an important mental quality that can develop in psychodynamic psychotherapy and has positive associations with outcome (Middleby-Clements, 2003).

Theoretical overview of the development of reflective-functioning in psychotherapy

According to Fonagy, the ability to mentalize develops from mutual interactions during a significant interpersonal bond between attachment figure and infant (Fonagy, 1999; Fonagy et al., 2002; Fonagy et al., 1998). However, later in life, psychotherapy may also function as such a relationship by providing a secure base via a secondary attachment relationship (e.g., Bowlby, 1988; Fonagy et al., 1995; Fonagy et al., 1998). In such a relationship, an environment can be created, wherein thinking about feelings and ideas can be experienced as safe, perhaps for the first time (Fonagy & Target, 1999). Increases in mentalizing and improved understanding of social causality are therefore expected to be especially prominent in psychotherapies that allow the patient to explore his/her own mind as well as the mind of the other, including that of the therapist (e.g., Fonagy et al., 2002). Theorists have also suggested that a mutual exploration of affect-laden interactions between therapist and patient might in particular facilitate increases in mentalizing (e.g., Fonagy, 1999; Jones, 2000).

Theoretical suggestions regarding which specific psychotherapeutic techniques might facilitate RF are sparse. However, both Jones (2000) and Fonagy (Fonagy, 1999; Fonagy et al., 2002) suggest that the therapist's own ability to mentalize about the patient's experiences is a crucial component. For example, Fonagy and Target (1999) address the importance of the therapist's ability to remain aware of the patient's mental state, so that s/he may address and challenge the patient's mental capacity. For example, the therapist must be adept at verbalizing internal states, differentiating feelings, and breaking down unmanageable, anxiety-provoking experiences into simpler and more manageable entities. Fonagy and Target (1999) argue that when the therapist, in his/her therapeutic technique, is focusing on aspects of the internal world that are neither unconscious nor overly complex, the patient is aided in developing an "as-if" attitude where ideas can be thought about as ideas rather than as reality. Hence, the patient is then guided into developing what Flavell (1979) might have considered an appearance-reality distinction and Segal (1955/1988) would perhaps have called symbol formation. More concretely, Jones (2000) suggests that the therapist can promote the level of RF in the patient by making clarifications and confrontations, identifying themes in the patient's experience or conduct, using memories or reconstructions of the past, and linking perceptions or feelings with past experience.

Theoretical overview on reflective-functioning in different schools of psychotherapy

Psychoanalytic treatment approaches are believed to especially facilitate RF because of their emphasis on understanding the therapist-patient relationship and the nature of defensive processes (Fonagy et al., 2002; Jones, 2000). Such approaches are expected to facilitate awareness of the distinction between representations of objects (e.g., self and others), which are fantasy-based, and external object representations, which are in closer contact with the outside

reality (Jones, 2000). On the other hand, supportive techniques are suggested to inhibit the understanding of important aspects of the interaction between therapist and patient and, hence, to limit increases in RF (Jones, 2000). Jones (2000) argues that most once-a-week brief psychotherapies are supportive in nature, and consequently, quite limited in improving RF. He listed as examples of such brief, supportive psychotherapies interpersonal psychotherapy (IPT; Klerman, Weissman, Rounsaville, & Chevron, 1984) and cognitive-behavioral psychotherapy (CBT; Beck, Rush, Shaw, & Emery, 1979). He argued that even though CBT-theorists emphasize errors in logic and thinking, they do not work from a developmental perspective towards the understanding of these errors, nor do they consider how these errors are expressed in the psychotherapeutic situation. Instead these errors are corrected by testing them against reality in homework assignments (Jones, 2000).

Concurrently, Jones (2000) claimed that the focus in IPT is to expose recent patterns in the patient's interpersonal relations and link them to the psychopathology. He contended that in spite of the supportive nature of the two treatments, patients in IPT could be expected to a greater degree than patients in CBT to reflect on self-other interactions and work towards the understanding of their own and other's mental states. Moreover, brief psychodynamic psychotherapy (BPDT) might facilitate mentalization more than CBT and IPT because of its emphasis on developing reflection, analyzing intrapsychic conflicts and defenses, and understanding self-other interactions within the therapeutic relationship, by means of transference (Jones, 2000). It is, however, not clear whether the short-term focus of BPDT might hamper the development of RF throughout the course of treatment.

The objective of the current study

The primary objective of the current study is to investigate whether there are changes in RF during brief IPT, CBT, and BPDT. A second goal is to explore which specific correlates in the psychotherapeutic process describe high and low RF and whether these process correlates are associated with outcome. In considering specific RF correlates and their relations to outcome, I am extending my investigation of RF during the therapeutic process beyond Bernbach et al.'s work (2000) by conceptualizing the research endeavor in a different manner. While they used RF as a direct and global descriptor of the process, I will focus on identifying specific components of the therapeutic situation that are related to high and low RF in patients' narratives of self-other interaction, and investigate whether these components are related to outcome.

STUDY I

Methods

Participants

The sample in this first study was based upon archival records from the NIMH-sponsored randomized clinical trial Treatment of Depression Collaborative Research Program (TDCRP; further description of procedures and methods beyond what is presented here is available in Elkin et al., 1989). The participants in this study is a subsample of the 155 participants in the TDCRP that completed at least 12 sessions of treatment and at least 15 weeks of treatment in either of the four treatment conditions (CBT, IPT, Imipramine-Clinical Management, and Placebo-Clinical Management). The TDCRP participants were all diagnosed with major depressive disorder. The average age of the participants was 35 years, and 70% of the sample was comprised of females.

The length of the therapies that are included in this study ranged from 12 to 20 sessions per participant, with an average length of 16.2 sessions ($SD = 2.5$). The therapies in the TDCRP were delivered in accordance with detailed manuals (e.g., Beck et al., 1979; Klerman et al., 1984) by well-trained therapists and certain procedures were carried out to insure adherence to treatment protocols (Elkin et al., 1989). The sample in this study contained one session at the beginning of treatment (on average the 4th session) and one session from the later part of treatment (on average the 12th session), with a total of 128 sessions, including 35 cases of interpersonal therapy (IPT; Klerman et al., 1984) and 29 cases of cognitive-behavioral therapy (CBT; Beck et al., 1979). Each one of these 128 sessions was transcribed and the verbatim transcripts were used in this study.

Measures

The reflective-functioning manual (Fonagy et al., 1998) was used for rating verbatim from the treatment sessions describing self-other interactions. The manual defines RF and provides guidelines on how to rate RF on an 11-point scale, ranging from repudiated (rating of -1) to exceptional levels (rating of 9) of RF. The Psychotherapy Process Q-set (PQS; Jones, 2000) was used to identify which specific components of the process are associated with low and high RF. The PQS consists of 100 items describing specific actions, behaviors, and statements that can illuminate the psychotherapy process from a pantheoretical viewpoint. The instrument has demonstrated both reliability and validity across a wide variety of studies and treatments (Jones, 2000). Each session was rated with the PQS by two independent, clinically experienced raters who maintained a minimum inter-judge reliability of .50 (see Jones, 2000 for an extensive description of the procedures). Measures of outcome in this study were generated from standard outcome instruments used in the TDCRP. They measure a wide spectrum of symptomatology, attitudes, and interpersonal functioning. The majority of the measurements are based on self-report and include the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), Dysfunctional Attitudes Scale (DAS; Weissman & Beck, 1978), the Hopkins Symptom Check List (HSCL-90; Derogatis, 1993) and the Social Adjustment Scale (SAS; Weissman & Bothwell, 1976). The Hamilton Rating Scale for Depression (HRSD; Hamilton, 1967) and the Global Assessment Scale (GAS; Endicott, Spitzer, Fliess & Cohen, 1976) measured change as rated by the clinical evaluators.

Procedure

In an attempt to ensure validity for the RF construct, the RF manual was applied as closely as possible to the original rating procedures when used for rating AAls. However, a few modifications of the original guidelines were necessary to adapt the procedures for the rating of psychotherapy transcripts (presented in Appendix A). The judges included clinicians, graduate students, and advanced undergraduate students in psychology. All transcripts were rated by two independent judges, and one of the judges was always an experienced clinician (usually this author). The judges were blind towards the modality of treatment and order of sessions. The highest rating of RF in each session was used in the data analysis. Disagreements between judges in the RF rating of one RF scale point or less were resolved by averaging, whereas disagreements of more than one point were resolved through discussion until consensus was reached. In total, fewer than 15% of the transcripts underwent such consensual agreement procedure. The inter-judge reliability in this study was acceptable ($r = .83$) and comparable to the reliability obtained when scoring RF from AAl-transcripts ($r = .89$; Fonagy et al., 1998).

Data analysis

First, an ANOVA and subsequent tests of simple effects were performed to determine whether the level of RF changed across the sessions, and whether the level of RF was different between the two treatments. Secondly, the PQS was used for an item-by-item analysis to determine which aspects of the therapeutic process constitute high vs. low RF. In order to decrease the probability of Type I errors, only items with a two-tailed p-value of $< .001$ are reported. The identified PQS items were thereafter used as “process correlates” (cf. Ablon & Jones, 1999) to determine whether or not they were related to treatment outcome.

Results and Discussion

To measure the general change in RF during the treatments, the means for the entire sample ($N = 64$) were calculated for RF in session 4 and in session 12 (see Figure I). An ANOVA showed a main effect for session, indicating that the average level of RF decreased significantly during the course of treatments (M session 4 = 4.52; $SD = 1.48$; M session 12 = 3.73; $SD = 1.33$; $F = 10.51$, two-tailed $p < .002$). There was also a main effect for treatment: the level of RF was significantly higher during IPT than CBT ($F = 16.51$; two-tailed $p < .000$). The interaction between session and treatment was not significant ($F = 2.65$; ns.).

In accordance with the theoretical suggestions of specific differences between the two treatments presented by Jones (2000), tests of simple effects were conducted. The results showed that the level of RF did not change in CBT from session 4 ($M = 3.79$; $SD = 1.29$) to session 12 ($M = 3.41$; $SD = 1.26$) ($F = 2.09$; ns.). However, the level of RF decreased significantly in IPT across the sessions (M session 4 = 5.13; $SD = 1.37$; M session 12 = 3.99; $SD = 1.35$; $F = 12.39$; two-tailed $p < .001$). The level of RF was greater in IPT than in CBT during session 4 ($F = 15.88$; two-tailed $p < .000$), but not in session 12 ($F = 3.03$; ns.).

These findings support the theoretical overview of CBT as having less RF than IPT (Jones, 2000), but only during session 4 of the treatments. Considering the participants in the TDCRP were randomized to the treatment conditions, the result cannot be explained by group differences prior to the start of the treatments. However, the observed decrease in RF during IPT is a surprising finding, not suggested by the theoretical overview above, and warrants additional explanation. This issue will be discussed further in the general discussion section.

Post-hoc Analysis

Identifying process correlates related to RF. An item-by-item analysis of the PQS was calculated with all 128 sessions combined to understand which specific process components are associated with high vs. low RF during treatments. To decrease the probability of Type I errors, only items with a two-tailed p-value of $< .001$ were included in the results. Such a conservative exclusion criteria, of course, increases the probability of Type II errors, but is nevertheless deemed necessary at this exploratory stage of investigating the process of RF during psychotherapy. The results for the positive correlations between RF and PQS are presented in Table 1. Positive relations were found between high RF and Q 28 (therapist accurately perceives the therapeutic process) and with Q 88 (patient brings up significant issues and material). These items are probably not associated with a specific psychotherapy school but are more related to therapists' skills and patients' motivations for treatment. In addition, two items describing specific psychotherapeutic technique were also linked to high level of RF: Q 50 (therapist draws attention to feelings regarded by the patient as unacceptable) and Q 6 (therapist is sensitive to the patient's feelings, attuned to the patient, empathic). This suggests

that high RF is related to a therapeutic style characterized by working with unacceptable feelings in an empathic manner. Such a therapeutic style has been suggested to facilitate mentalization (Fonagy et al., 2002; Jones, 2000). Finally, high RF seems to be related to patients who are highly motivated (Q 73; patient is committed to the work of therapy) and to patients who show signs of insight (Q 32; patient achieves a new understanding or insight).

With regard to PQS items that are associated with low RF (see Table 2), links were found between items describing patient characteristics that are often typical of unproductive treatments. For instance, the following items were all associated with low RF: patient does not feel understood by therapist (Q 14), patient does not initiate topics; is passive (Q 15), patient rejects therapist's comments and observations (Q 42), and patient feels wary or suspicious (towards the therapist) (Q 44). In addition, Q 17 (therapist actively exerts control over the interaction) was also found to be associated with low RF. That last particular item might be associated with many forms of brief, supportive treatments that do not specifically aim towards exploring psychic reality (Fonagy et al., 2002).

Table 1

Process correlates describing the most characteristic PQS items related to reflective-functioning in the NIMH TDCRP and their relation with outcome

PQS#	Item description	BDI	HSCL-90	SAS	HRSD	DAS	GAS
6	T is sensitive to the patient's feelings, attuned to the patient; emphatic	-.21	-.08	-.09	-.15	-.03	.09
88	P brings up significant issues and material	-.33**	-.24	-.18	-.15	-.23	.16
28	T accurately perceives the therapeutic process	-.33**	-.06	-.16	-.13	-.13	.19
73	P is committed to the work of therapy	-.46***	-.24	-.30*	-.29*	-.29*	.29*
32	P achieves a new understanding or insight	-.43***	-.22	-.32**	-.27*	-.13	.32**
50	T draws attention to feelings regarded by the patient as unacceptable (e.g., anger, envy or excitement)	-.17	-.10	-.12	-.11	-.01	.09

Note. PQS = Psychotherapy Process Q-set; T = therapist; P = patient; *** = $p < .001$; ** = $p < .01$; * = $p < .05$
 BDI = Beck Depressive Inventory; HSCL-90 = Hopkins Symptom Check List-90; SAS = Social Adjustment Scale; HRSD = Hamilton Rating Scale for Depression; DAS = Dysfunctional Attitude Scale; GAS = Global Assessment Scale.

Partial correlations were calculated with outcome (controlling for pretreatment scores). A negative correlation between the PQS items and BDI, HSCL-90, HRSD and DAS suggests a link between good outcome and the process correlates identified with high RF. A positive correlation between the PQS items and GAS suggests a link between good outcome and process correlates identified with high RF.

Process correlates and outcome. In order to determine whether the PQS items that were identified above as characterizing high vs. low RF were associated with patient improvement, I calculated partial correlations (controlling for pretreatment) between outcome scores and the PQS items, across both treatments (see results in Table 1 & 2). The analysis indicated that many of the previously identified PQS items characterizing high vs. low RF during the treatment process had a significant correlation with outcome. The findings suggest that high RF and good outcome is related to a treatment process where the patient is committed to the treatment (Q 73) and gains insight (e.g., a new perspective/attitude) during the treatment (Q 32). Such a patient brings up significant issues or material during the treatment (Q 88) and

the therapist appears competent in perceiving the patient's experience of the therapeutic relationship (Q 28). Somewhat surprisingly, the process correlates that described the therapist's handling of emotive material during the treatment (Q 50; therapist draws attention to feelings regarded by the patient as unacceptable and Q6; therapist is sensitive to the patient's feelings, attuned to the patient, empathic) have no significant relation with the outcome measures. Concurrently, process correlates associated with low RF predicted, in general, poor outcome. Thus, patients who feel wary or suspicious of the therapist (Q 44) do not feel understood by the therapist (Q 14), reject the therapists' comments or observations (Q 42), and lack initiative and appear passive (Q 15), had a poor outcome of the treatments. Surprisingly, a therapists' active control over the structure and the interaction (Q 17) was not related to outcome.

Table 2
Process correlates describing the least characteristic PQS items related to reflective-functioning in the NIMH TDCRP and their relation with outcome

PQS#	Item description	BDI	HSCL-90	SAS	HRSD	DAS	GAS
17	T actively exerts control over the interaction (e.g. structuring and/or introducing new topics)	.12	-.08	.04	-.04	-.07	.01
44	P feels wary or suspicious (vs. trusting and secure)	.46***	.31**	.35**	.38**	.29*	-.32**
14	P does not feel understood by therapist	.54***	.33**	.40**	.46***	.28*	-.45***
42	P rejects (vs. accepts) T's comments and observations	.55***	.37**	.53***	.46***	.36**	-.58***
15	P does not initiate topics; is passive	.36**	.15	.28*	.21	.16	-.22

Note. PQS = Psychotherapy Process Q-set; T = therapist; P = patient; *** = $p < .001$; ** = $p < .01$; * = $p < .05$
BDI = Beck Depressive Inventory; HSCL-90 = Hopkins Symptom Check List-90; SAS = Social Adjustment Scale; HRSD = Hamilton Rating Scale for Depression; DAS = Dysfunctional Attitude Scale; GAS = Global Assessment Scale.

Partial correlations were calculated with outcome (controlling for pretreatment scores). A positive correlation between the PQS items and BDI, HSCL-90, HRSD and DAS suggests a link between poor outcome and the process correlates identified with low RF. A negative correlation between the PQS items and GAS suggests a link between poor outcome and process correlates identified with low RF.

Summary of findings investigating RF in IPT and CBT

The findings from this study, as assessed between the two data points, indicate that (a) the mean RF was higher in IPT than CBT, (b) IPT had a higher level of RF than CBT in session 4 but not during session 12, (c) RF decreased during the course of IPT, but remained stable in CBT, and (d) process correlates describing high RF during the process were related to positive outcome, whereas process correlates describing low RF during the process were related to negative outcome. The PQS analysis demonstrated that process correlates related to high RF and good outcome described an active, highly motivated patient who gained insight into his/her problems, and a competent therapist who perceived the patient's experience of the therapeutic relationship. Concurrently, the PQS analysis suggested process correlates characterizing low RF and linked with poor outcome were associated with patients who were passive, wary, and suspicious of the therapist, rejected the therapist's comments, and did not feel understood by the therapist.

Overall, the process-based descriptions of low vs. high RF and their respective relation to outcome were in alignment with theoretical suggestions (e.g., Fonagy et al., 2002; Jones, 2000). Thus, the TDCRP sample included IPT and CBT treatments, which are suggested to not facilitate the development of RF (cf. Jones, 2000). These findings stimulated the question as to whether BPDT might provide a different trajectory of RF development during the process of treatment, and resulted in an additional investigation that will be described next.

STUDY II

Method

Participants

The sample in this second study was based upon archival records from 30 brief psychodynamic psychotherapy (BPDT) treatments obtained from the Mount Zion Psychotherapy Research Group in San Francisco (for a more elaborate description of the sample see Jones & Pulos, 1993). Patients in this archival sample had a range of classical “neurotic” diagnoses, such as depression, dysthymia, and generalized anxiety disorder. The mean age of the patients was 50 years (range: 20-81 years), and the patients came from a broad educational background that ranged from high school to doctoral degrees. Sixty percent of the patients were female, and the average length of treatments was 15.8 sessions (SD = 1.35), ranging from 11 to 20 sessions. Fifteen well-trained therapists with specialized training in BPDT, and an average of 6 years in private practice (range: 1-19 years), delivered the treatments. Five therapists treated 3 patients each, 5 treated 2 patients each, and another 5 treated 1 patient each. The sample in this study consisted of transcripts from the 1st, 5th, and 14th session of each treatment, which resulted in a total of 90 sessions.

Measures

Again, the Reflective-functioning Manual (Fonagy et al., 1998) was used for rating verbatim transcripts from the psychotherapy sessions, and the Psychotherapy Process Q-set (PQS; Jones, 2000) was used to investigate which specific components of the process are associated with low and high RF. Measures of patients’ self-reported outcome included the Hopkins Symptom Check List and Global Severity Index (HSCL-90; GSI; Derogatis, 1993). The clinical evaluators measured outcome with the Brief Psychiatric Rating Scale (BPRS; Overall & Gorham, 1962). Unfortunately, the GSI and HSCL-90 were based on 12 patients out of the 30 and BPRS was based on 18 out of the 30 patients. This will inevitably reduce the statistical power in finding significant results. However, the number of dropouts must be viewed as one of the clinical realities when conducting research.

Procedure

The rating procedure of RF for the second study was identical to that of the first study. At least two independent judges rated all transcripts and were blind with regard to the order of the sessions. One of the raters was always an experienced clinician (usually this author). Again, the highest rating of RF in each session was used in the data analysis. Disagreements were resolved in the same manner as in the first study, and fewer than 20% of the transcripts underwent such a consensual agreement procedure. The inter-judge reliability of RF rating in this study was acceptable ($r = .84$) and comparable to that of the first study.

Data analysis

The data analysis of the second study followed the procedures described in the first study in order to replicate the findings. First, an ANOVA was calculated to determine whether the level of RF changed across the sessions. Secondly, the PQS was used for an item-by-item analysis to determine what specific components of the therapeutic process were related to high vs. low RF. As in the first study, in order to decrease the chance of Type I errors, only items with a two-tailed p-value of $< .001$ are reported. The identified PQS items were subsequently used as process correlates to determine whether they were related to treatment outcome.

Results and Discussion

To measure the general change in RF during the treatments, the mean RF in sessions 1, 4, and session 14 were calculated for the whole sample ($N = 30$) (see Figure I). The mean level of RF in session 1 was 4.62 ($SD = 1.39$); 4.37 in session 5 ($SD = 1.13$); and 4.37 in session 14 ($SD = .82$). A one-way ANOVA showed that the differences across the sessions were not significant ($F = .48$, ns.). The result suggests that RF is stable during the course of BPDT in this sample. Again, this lack of improvement of RF might be interpreted in alignment with theoretical positions regarding the relation between brief treatments and mentalizing (e.g., Fonagy et al., 2002; Jones, 2000), but is surprising considering that one of the suggested objectives of BPDT is to generate skills that facilitate mentalizing (e.g., Jones, 2000).

Post-hoc Analysis

Identifying process correlates related to RF. As in the first study, an item-by-item analysis was conducted with the PQS for all 90 sessions in order to reveal which specific process components are associated with high vs. low RF during the treatment. As was the case with the first study, only items with a two-tailed p-value of $< .001$ were included in the results to decrease the probability of Type I errors (see results with the identified PQS items in Table 3). There was a positive relation between process correlates associated with high RF and discussions about patients' interpersonal relationships (Q 63), when patients are expressing angry or aggressive feelings (Q 84) and when patients are introspective; readily explore inner thoughts and feelings (Q 97). Process correlates associated with low RF were related to patients who are resisting examining thoughts, reactions, or motivations related to problems (Q 58), and patients who are passive and do not initiate topics (Q 15).

Table 3

Process correlates describing the most and least characteristic PQS items related with reflective-functioning in Brief Psychodynamic Psychotherapy (BPDT) and their relation with outcome

PQS#	Item description	HSCL-90	BPRS ¹	BPRS ²	GSI
Relations between process correlates describing high RF and good outcome (negative r equals good outcome)					
63	P's interpersonal relationships are a major theme	.18	-.06	.07	-.24
84	P expresses angry or aggressive feelings	-.62*	-.32	-.15	.33
97	P is introspective, readily explores inner thoughts and feelings	-.64*	-.57*	-.39	-.40
Relations between process correlates describing low RF and poor outcome (positive r equals poor outcome)					
58	P resists examining thoughts, reactions, or motivations related to problems	.47	.46*	.21	.25
15	P does not initiate topics; is passive	.54*	.52*	.16	.27

Note. PQS = Psychotherapy Process Q-set; T = therapist; P = patient; * = $p < .05$

HSCL-90 = Hopkins Symptom Check List; BPRS = Brief Psychiatric Rating Scale; GSI = Global Severity Index.

The outcome data for GSI and HSCL-90 was based on 12 out of the 30 patients and the BPRS data was based on 18 out of the 30 patients. Partial correlations were calculated with outcome (controlling for pretreatment scores).

Process correlates and outcome. In order to determine whether the PQS items that distinguished high RF from low RF were associated with patient improvement, I calculated partial correlations (controlling for pretreatment scores) between outcome scores and the PQS items across the treatments (see the results in Table 3). The analysis indicated that many of the relations between PQS items characterizing high vs. low RF during the treatment process and outcome generated a substantial effect size, without always being statistically significant. The lack of significance in these findings was arguably related to the small sample size with a subsequent reduction of statistical power in many of the measures (the BPRS data was based on only 18 of the 30 patients while both GSI and HSCL-90 were based on only 12 patients). Nevertheless, the result suggests that the identified PQS items that described high vs. low RF in this second study have some validity in that they converge with the results from the previous study in that they describe patient characteristics. For example, process correlates linked to high RF and good outcome are related to a treatment process where the patient is introspective, readily explores inner thoughts and feelings (Q 97) and expresses angry or aggressive feelings (Q 84). It is possible that this introspection combined with anger is focused on the patient's interpersonal relationships (Q 63), although this later PQS item has non-significant correlations with outcome. Process correlates describing low RF and poor outcome is associated with patients who are resistant to examining thoughts, reactions, or motivations related to problems (Q 58), and does not initiate topics and is passive (Q 15).

Summary of findings investigating RF in BPDT

Reflective-functioning remained stable during the course of treatment in this study, as assessed with the three data points. This supported the theoretical overview of BPDT as being too brief to promote the development of RF, but the result is still surprising considering BPDT is

¹ Evaluator, post-treatment

² Evaluator, 1st follow up

suggested to facilitate the development of RF (e.g., Jones, 2000). Process correlates characterizing low and high RF had a relation with outcome, although many correlations were not significant due to the low statistical power that resulted from the small sample size. Nevertheless, process correlates interrelated with high RF and good outcome in this study were associated with patients who were introspective, explored inner thoughts and feelings, and expressed negative emotions. Concurrently, process correlates describing low RF and negative outcome was associated with a patient who was resistant towards exploring internal states, and appeared passive during the therapy.

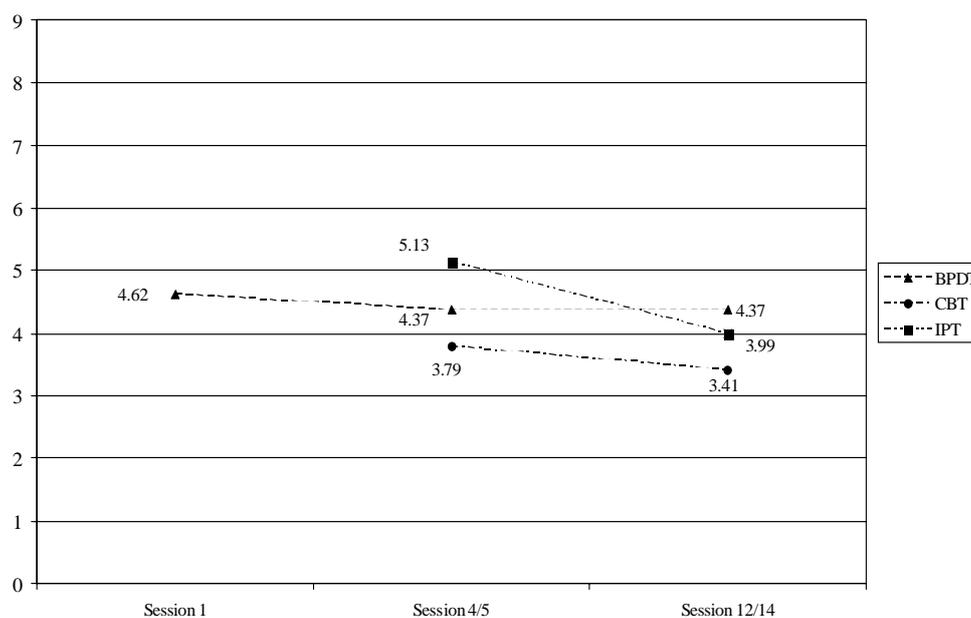


Figure 1. Reflective-functioning in three types of brief psychotherapy.

GENERAL DISCUSSION

Why did RF not increase between the data points during the course of the treatments?

Although it might be tempting to collapse the TDCRP sample and the BPDT sample in the data analysis, I refrained from doing so due to the fact that the samples were substantially different from one another. For example, while the TDCRP had a randomized assignment of patients to treatment conditions, the BPDT sample is from a naturalistic study of psychotherapy. There are also substantial differences in demographic variables between the samples, especially in the areas of average age and gender frequency. Even more crucial are the differences between the last data points in each sample: session 12 in the TDCRP vs. 14 in BPDT. In brief treatments, these differences may reflect the fact that the two samples were at different phases in the treatments. Thus, any discrepancies between CBT/IPT vs. BPDT might be due to differences in treatment phases and/or design, rather than variations in schools of psychotherapy. The two samples were therefore analyzed separately in an effort to achieve better statistical integrity and, because the findings largely converge, they provide a stronger

support for the findings. Hence, despite variability in type of treatment, differences in research design, and, perhaps, differences in treatment phases when RF was assessed, the findings conclude that there was no increase of RF in the process between the data points in any of these three brief psychotherapeutic treatments.

The findings from the TDCRP suggested that both IPT and CBT significantly relieved depression during the course of the study, but they did not yield any large differences in effect size between the treatment conditions (Elkin et al., 1989), nor did they produce any substantial long-term effects after termination of treatment (Shea et al., 1992). Ablon and Jones (1999, 2002) concluded in their PQS analysis of the TDCRP-sample that the psychotherapeutic processes of CBT and IPT that were utilized in the study were very similar in that they both prescribed to supportive techniques. Thus, the reason that RF did not increase in either treatment might be explained by the fact that both treatments were largely supportive in nature, rather than insight-oriented. In addition, the previously conducted process analysis of the BPDT sample in this study suggested the presence of a substantial amount of supportive techniques (Jones & Pulos, 1993), which could explain why also BPDT showed a stable level of RF throughout the treatment.

These findings support the theoretical arguments by Jones (2000) and Fonagy (Fonagy et al., 2002), which maintain that brief treatments, in general, are not promoting increases in RF. Considering that RF is supposed to promote a mental image of a whole-object relation (Fonagy et al., 1998), improvements in this fundamental mental function might only be attained by insight-oriented long-term treatment (Fonagy et al., 2002). In fact, recent studies of treatment outcome have demonstrated that both treatment duration and session frequency are significant predictors of outcome (e.g., Lamb, 2005; Salekin, 2002; Sandell et al., 2000).

In Fonagy's (1999) discussion of the process of change in therapy, he suggests that the initial phase of treatment may be characterized by symptom reduction, without concomitant changes in RF. This phenomenon is the classical psychoanalytic notion of the transference cure (Greenson, 1967) and is, according to Jones (2000), the characteristic outcome of brief treatments (cf. Shea et al., 1992). Fonagy (1999) argues that long-term treatments, thereafter, enter a phase where symptomatology might increase because of the disinhibition of mental processes that have taken part in the therapeutic interaction (Fonagy, 1999). In the final phase, a reorganization or restructuring of the representational system might be generated through enhanced ability for mentalizing (Fonagy, 1999). Subsequently, Fonagy (1999) argued that more sessions and longer treatments result in better outcome, especially in long-term follow up, and when particular respect is paid to the development of mentalization. However, this hypothesis warrants further validation by systematic investigation of the relation between long-term treatment and RF.

Why a decrease of RF in IPT?

As expected, IPT had a higher level of RF than CBT during the treatments but only during session 4. Considering that the participants in the TDCRP were randomized to the treatment conditions, this difference in session 4 could not be explained as a group difference present before the start of the treatments. Instead, the difference is most likely related to differences in therapeutic technique. This finding was, thus, partially congruent with the theory of IPT as focused on the understanding of interpersonal relations, especially in the early phase of the treatment when an extensive interpersonal history is obtained (Klerman et al., 1984), while CBT treatment is focused on corrections of dysfunctional thoughts (Beck et al., 1978).

However, the significant drop in RF over the course of IPT is perhaps the most surprising finding in this study. I suggest that the drop in RF during IPT is related to the

therapists becoming more structured after the initial phase of obtaining an extensive interpersonal history. Thus, after the extensive interpersonal history was obtained, the patient's desire to understand their self and others during interpersonal exchanges decreased due to the fact that the therapists promoted more structured, supportive techniques (cf. Ablon & Jones, 1999, 2002). Such an interpretation of this finding is supported by another study of the TDCRP-sample by Crits-Christoph et al. (1999). They investigated interpersonal narratives in the early sessions of the TDCRP sample and found that IPT sessions, in general, contained more narratives than CBT sessions. Considering that interpersonal narratives are necessary for rating RF, this finding might partially explain the large difference in RF ratings between IPT and CBT in session 4.

The differences between the treatments in respect to RF are also determined by the quality of the narratives, as defined in the RF manual (Fonagy et al., 1998). The quality may, in turn, be partially affected by how often the participants had an opportunity to expand on the narratives without being interrupted. In this respect, Crits-Christoph et al. (1999) argued that CBT therapists were more talkative than their IPT counterparts when participants were presenting narratives. The authors showed in their study how the IPT therapists listened more attentively and allowed the participants to develop their narratives, whereas the CBT therapists interrupted the participants to correct their presumed dysfunctional beliefs. This was also my clinical impression when I returned to the transcripts in a non-blind format to see if I saw any differences between the treatments in the early phase. For example, there were many examples of how patients in CBT tried to present narratives about some significant interpersonal event that they believed to be related to their mental disorder, but the therapists usually interrupted them and explained why they needed to focus on their homework assignments instead. The IPT therapists, however, appeared to be more open to discussing interpersonal interactions during the early phase of treatment, and allowed the patients to hypothesize about the causes of their mental disorders in the context of self-other interactions.

Is RF in brief psychotherapies a patient characteristic?

The PQS-based process correlates of RF during the process of the three brief psychotherapies suggest that the relation between RF and outcome is, first and foremost, a patient characteristic. Thus, process correlates describing low RF and poor outcome are related to patients who are defensive, resistant, passive, wary, or feel poorly understood. In contrast, process correlates describing high RF and good outcome are associated with patients who are committed to treatment and raise significant issues and material, explore inner thoughts and feelings, and gain insight into their problems. It is, of course, possible that the therapists' skills and level of empathy and sensitivity affect the development of RF during the treatments, although the results from these two present studies do not support such a notion. In addition, the results from the two present studies found that no items describing interpersonal interaction between the therapist-patient had a significant relation with RF. This finding, combined with the absence of an increase of RF in general, suggests that RF is not primarily a relational phenomenon in these three forms of brief psychotherapy. These results raise a question as to how patient characteristics, which might be present even before the treatment, affect the level of RF and the outcome of brief psychotherapies. Based on these findings, the assessment of RF in patients prior to treatment could perhaps be implemented to determine whether brief psychotherapy is a feasible treatment option for a particular patient.

Limitations

The Reflective-functioning scale was used in this work to rate narratives that occurred in the therapy context as *mutual constructions* between patient and therapist. In contrast to the AAI interviewer, who is primarily an observer, a therapist is an active participant whose impact on the patient's expressed RF needs to be addressed in future work. For example, the relation between the RF ratings based on verbatim AAI, which would be obtained pre and post treatment, and verbatim from psychotherapy sessions, should be investigated. Findings from such research would increase the construct validity when using RF as a measure in psychotherapy research. In addition, what I measured was the participants' ability for RF expressed in narratives from the therapy sessions. It was not possible for me to determine whether the level of RF in the narratives reflected the "true" level of RF in the participants. Hence, the question of whether the patients' level of RF affected the therapeutic process, or whether the therapeutic process affected the patients' level of RF, remains unanswered. For example, it is possible that some patients intentionally exhibited low RF in an attempt to provoke a "rescue mission" from the therapist. Such transference reactions might have diluted my findings in unknown directions, but at this point, I am not aware of any research methods that can reliably distinguish "truthful" narratives from narratives that are tinged by transference.

Also, the data in these two studies was based on 2-3 sessions from each treatment. That which took place in the other sessions of the treatments remains unknown and unexplored, including the level of RF in the very last sessions of the treatments. Thus, future research would benefit from including a larger sample size that contains more data points throughout all phases of psychotherapeutic treatment, including the very last sessions. A study with a larger sample size would also possess greater potential to find more significant results, considering the fact that the lack of statistical power was apparent in several of the calculations in this study, especially when relating process correlates with outcome during BPDT. Finally, this study did not include substantial data from long-term follow up. It is possible that the importance of RF in psychotherapy research cannot be fully understood until long-term follow up data are included in the research designs.

It should also be noted that these process correlates were identified while imposing a very stringent level of statistical significance in order to decrease the chance of Type I-error. Although such an arrangement is necessary during studies of exploratory nature, such as the two presented in this work, it has a risk of producing Type II-errors. Thus, there is a risk that some very meaningful process correlates have been left out in these two studies. Future work might therefore find additional dimensions of RF during the process in addition to the personality dimension described in this present work.

Finally, it is important to keep in mind that the practice of psychotherapy is an evolutionary enterprise that continuously changes in the light of zeitgeist and new research findings. Both of the samples in this study were conducted over 15 years ago, and even though both samples are considered stellar in their own right (e.g., the TDCRP study is often referred to as the "gold standard" of psychotherapy research both in respect to research design, training of therapists, and consistent implementation of treatment manuals; Ablon & Jones, 1999), the practices of IPT, CBT, and BPDT are most likely different today in comparison to how they were conducted in that period of time. Thus, there might be some limitations in generalizing the findings to the contemporary practice of these treatments. For example, it is possible that the recent emphasis on mindfulness in CBT (e.g., Hayes et al., 2004; Segal et al., 2002) has changed the exclusive focus in such treatment of modifying behaviors and cognitive schemas through homework assignments and didactic techniques (e.g., "Don't think this—instead,

think that”; Hayes et al., 2004, p. 19) into a less mechanical approach with an additional focus on relational, contextual and experiential change (which in many ways is a step towards integrating CBT techniques with the philosophical framework of contemporary psychoanalysis/psychodynamics, see e.g., Safran & Muran, 2000). For example, some promising research suggests that CBT combined with training in mindfulness might result in less relapses for some patients (e.g., Teasdale et al., 2000).

Conclusions and future directions

Despite impressive findings on the importance of RF in psychological development and mental health, the concept has scarcely been investigated in the realms of psychotherapy. Therefore, the results presented here substantially contribute to the limited knowledge on the subject matter. The two studies showed that RF, in general, did not increase during the process in brief psychotherapy, as assessed between several data points along the treatments. In fact, instead a decrease of RF in IPT during the course of treatment was found, while the level of RF remained stable in CBT and BPDT. Process correlates characterizing high RF and positive outcome appeared to occur in committed patients who worked towards insight and understanding of their problems. In contrast, process correlates linked with low RF and poor outcome were associated with patients who were passive, resistant, and wary of the therapist.

The findings from these two studies converge in suggesting that RF is a patient characteristic that does not increase during brief BPDT, CBT and IPT treatments. However, further work is needed to both replicate and clarify whether it is possible to generalize these results to all schools of brief therapy and across psychological disorders. Depending on whether findings from this study will be replicated, they suggest that RF could be used as a screening device to determine which patients are most likely to benefit from brief psychotherapies.

In addition, the patient groups in these two samples were mostly suffering from depression and anxiety. It is possible that an improvement in mentalizing is a more pertinent factor in psychotherapeutic treatment of more severe psychopathology. For example, Fonagy’s theorizing regarding RF in treatments has mostly revolved around borderline personality disorder (e.g., Fonagy, 1999; Fonagy et al., 1995; Fonagy et al., 2002). Improvements in RF also seem to be a crucial process measure in Kernberg and Clarkin’s research on transference-focused psychotherapy for borderline personality disorders (John Clarkin, personal communication, August 2000). On the other hand, we must also be open to the possibility that any treatment that is theoretically well-defined, and consistently applied, will result in good outcome, independent of the concept of RF. However, the finding from these two studies does not support such a notion considering the identified process correlates describing low and high RF were associated with outcome.

On a final note, I suggest that further work in investigating RF is needed to validate its usefulness in psychotherapy. For example, the convergence between RF ratings during psychotherapy sessions and ratings from AAI verbatim reports need to be investigated. Also evident is the future prospect of developing an empirically derived RF-oriented psychotherapy, based on process/outcome research studies of treatments. Such a research endeavor might have a fundamental impact on how psychotherapy will be practiced in the future by identifying particular RF-promoting techniques. If future research will show that RF can inoculate against stressors and, hence, promote mental health, it can be expected that this work will be repeated across different schools of psychotherapy, with different frequencies of treatment and different diagnostic populations. Nevertheless, the results from these two studies suggest that patients in these three types of brief treatments do not demonstrate a general increase in RF during the

therapeutic process and, thus, they support theorists' views that most brief psychotherapies are supportive in nature. As such, despite its exploratory nature, this study marks one basic step in the process of understanding the course and importance of RF during psychotherapy.

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Appendix A.

Modifications of the Reflective-functioning Manual for rating psychotherapy verbatim

The conceptualization of an attachment object was expanded beyond primary attachment figures by including other significant persons in patients' current lives (e.g., partners, children, close friends and colleagues, the therapist, supervisor at work etc.). Pets were not included, despite the fact that many relationships between humans and their pets are, without doubt, significant.

The criteria used in the RF manual for rating the interaction with the AAI interviewer were applied to the interaction with the therapist (e.g., the patient acknowledged that the therapist might have a different perception of reality than the patient or the patient comments that the therapist might have difficulty in following the patient's stream of thought etc.).

Transcripts in which patients did not present narratives on self-other interactions received a RF rating of 1 (absent RF).

The data analysis of RF was based on the highest rating from each session. This is different from the manual in which an aggregated score of RF is used in data analysis. Such modification was deemed necessary to reduce error variance, because the rules in the manual that stipulate how to aggregate RF scores into an overall score were difficult to apply for psychotherapy sessions.

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