Defense Mechanisms in Psychotherapy:

An Examination of the Therapeutic Techniques Employed by Therapists In-session.

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Abstract

Psychodynamic psychotherapy emphasizes the unconscious aspects of experience in the therapeutic process. Within this theoretical framework lie unconscious mental processes that aim to protect an individual from unwanted thoughts, emotions, and anxiety referred to as *defense mechanisms*. Research has shown that defense mechanisms are both an empirically robust and clinically meaningful construct (e.g., Hentschel, Smith, Draguns, & Ehlers, 2004). This thesis presents research that aims to study the intersection of therapeutic technique and defense mechanisms in psychodynamic psychotherapy. The thesis is divided into 5 chapters and includes three manuscripts. The first manuscript reviews and synthesizes the body of work pertaining to defense mechanisms in the psychodynamic literature with an emphasis on how these sources can subsequently inform the direction of empirical research studies in psychodynamic research. Consensus meetings with other researchers were used to organize, reorder, and integrate findings; this resulted in the construction of a table of "principles" that represent the conclusions of the first study. Psychoanalytic thinkers consistently identified one of these principles, defense interpretation depth, as an important clinical axiom. In Manuscripts 2 and 3, two empirical investigations that examined this principle are presented. The first empirical study compared *low-alliance* and *high-alliance* sessions for a sample of patients seen in short-term psychodynamic psychotherapy (40 sessions). The results indicated that while overall defensive functioning (ODF) was similar in the two alliance groups, therapists tended to make "deeper" defense interpretations in those sessions identified as lowalliance sessions. The second empirical study also examined defense interpretation depth; however, in this case the moment-to-moment therapist-patient interactions were

examined using lag sequential analysis. Results indicated that defense interpretation depth followed a predictable pattern in low-alliance sessions. These results are discussed and implications for future research and practice are explored.

Keywords: Defense mechanisms, psychodynamic psychotherapy, therapeutic technique

Résumé

La psychothérapie psychodynamique met l'accent sur les aspects inconscients de l'expérience dans le processus thérapeutique. Dans ce cadre théorique, se trouvent des processus mentaux inconscients qui visent à protéger l'individu des pensées indésirables, des émotions et l'anxiété, appelés mécanismes de défense. La recherche a montré que les mécanismes de défense sont à la fois une construction empirique robuste et cliniquement significative (Hentschel, Smith, Draguns, & Ehlers, 2004). Cette thèse présente une recherche qui vise à étudier l'intersection de la technique thérapeutique et des mécanismes de défense en psychothérapie psychodynamique. La thèse est divisée en cinq chapitres. Le premier chapitre examine et synthétise l'ensemble des travaux portant sur les mécanismes de défense de la littérature psychodynamique avec un accent sur la façon dont ces sources peuvent ensuite influencer la direction des études empiriques dans la recherche psychodynamique. Des réunions de consensus avec d'autres chercheurs ont été utilisées pour organiser, réorganiser et intégrer les résultats. Celà permit la construction d'un tableau de «principes» qui présente les conclusions de la première étude. Les experts psychanalytiques identifient systématiquement l'un de ces principes, la profondeur de l'interprétation de la défense, comme un axiome clinique importante. La prochaine étape, chapitres deux et trois, comprend deux études empiriques qui ont examiné ce principe. La première étude empirique a comparé des séances « d'alliance faible » et de « grande alliance » pour un échantillon de patients vus en psychothérapie psychodynamique à court terme (40 séances). Les résultats ont indiqué que, bien que le fonctionnement défensif global (ODF) fût similaire dans les deux groupes de l'alliance, les thérapeutes ont tendance à «approfondir» les interprétations de la défense de ces séances identifiées

comme séances « alliance faible ». La deuxième étude empirique a également examiné la profondeur de l'interprétation de la défense, mais dans ce cas, les interactions patientthérapeute d'un moment à l'autre ont été examinées en utilisant une analyse séquentielle. De même pour l'autre étude, les résultats ont indiqué que la profondeur d'interprétation de la défense a suivi une tendance prévisible dans les séances « alliance faible ». Ces résultats sont discutés et les implications pour la recherche et la pratique future sont explorées.

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To my wife Adrienne, who stood by my side as I journeyed through life's *Commedia*, I must borrow from Dante and say that words seem completely inadequate to describe love. Finally, I must thank the two pillars (G.S. & A.P.) on which I built my life, for if I have made it this far it is only because I am standing on the shoulders of giants.

Contributions of Co-Authors

All three manuscripts in this thesis represent the original writing of the doctoral candidate (Jonathan Petraglia) except wherever appropriate referencing was indicated. Petraglia was responsible for the development and writing of all components of this thesis. He was the primary author on all three manuscripts and responsible for integrating the feedback his supervisor, doctoral thesis committee, and co-authors provided.

Dr. Martin Drapeau supervised the thesis and provided critical intellectual, statistical, methodological, analytical and editorial contributions at all stages of this dissertation until its completion. He played a substantial role in the successful completion of the candidate's comprehensive examination.

Drs. Marilyn Fitzpatrick and Christopher Fowler served as members of the doctoral thesis committee and contributed intellectual, methodological, statistical contributions and were involved in reviewing all written material presented in this thesis. Drs. Jean Nicolas Despland and Yves de Roten provided the data set that was used for data analysis for manuscripts two and three. Fellow doctoral candidate and colleague in the McGill Psychotherapy Process Research Group (MPPRG) Maneet Bhatia, played an important role in data collection, data transcription, and data coding that was instrumental for all three manuscripts.

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Statement of Originality

I (Jonathan Petraglia) confirm that this thesis represents an original work and contribution to the advancement of knowledge. All scholarly works of other authors have been referenced fully according to the standard referencing format provided by the American Psychological Association. I attest, to the best of my knowledge, that the thesis does not infringe upon another's copyright except where noted, nor violates any proprietary rights. The thesis has been approved by my doctoral thesis committee and has not been submitted for another educational degree or certificate at any other institution. CHAPTER 1- INTRODUCTION – LITERATURE REVIEW & OVERALL

RESEARCH AIM OF THE THESIS

Defense mechanisms are unconscious mental processes that operate to protect or defend the mind. Originally, Freud (1894) described the mechanism of repression as the sole defensive process in existence. Later he expanded on his initial hypothesis and concluded that repression was but one defense mechanism of many. His daughter Anna, in her now famous work "The Ego and the Mechanisms of Defence" (1937/1965), provided a detailed list of individual defenses and their particular function by classifying them with respect to the type of anxiety associated with each mechanism.

The idea that living organisms defend themselves against diverse threats was not new at the time of Freud. Physiological studies showed that living organisms have natural defenses against harmful bacteria, viruses, and other potentially harmful agents that can act on organic systems. The uniqueness of Sigmund Freud's conceptualization was the belief that the mind has a parallel process of defense against psychic pain in the form of unwanted thoughts, emotions, and actions. Furthermore, these protective actions taken by the mind to defend itself were for the most part unknown to the individual and operated at a preconscious or unconscious level. The psychoanalyst, as an observing bystander, could point out the distortive process by which the patient was protecting him or herself and thus provide insight into the process of defense. The interaction was hypothesized to break down or overcome the "defensive wall" set up by the patient's mind unconsciously and to clear the path for accessing the defended material of the patient.

In the psychoanalytic theory that predominated after Freud's (1926) revision of the original topographical model, known as the structural model, the unconscious was divided into three hypothetical structures: the id, ego and superego. These psychic structures were theorized to oppose each other while defenses, employed by the ego, were enlisted to re-establish equilibrium. Through the concept of defense, the ego is responsible for resolving the conflicts that arise by establishing a compromise between opposing psychic forces. This is why defenses are sometimes referred to as "Ego Mechanisms of Defense" or "Ego Defenses" (Freud, 1937/1965; Vaillant, 1992). The structural model shifted the ego to the epicentre of mental life and with it came an increasingly central role for the defense mechanism in research.

Empirical Investigation of Defense Mechanisms

From an empirical standpoint, studying defenses has been fraught with difficulties. For instance, although Anna Freud (1937/1965) defined most of the defenses debated today, there is still disagreement in the field regarding the definitions of individual defenses (Cramer, 1998; Vaillant, 1998). The discrete categorization of defenses into individual mechanisms, levels, or styles highlights the diffuse boundaries that divide these phenomena. Because each defense mechanism represents only a glimpse into the complicated unconscious processes that compose the "defense mechanism", each individual defense is difficult to categorize as discrete and bounded. It became onerous to develop instruments for measuring and classifying defenses. Despite this, a number of instruments that aim to capture aspects of defensive functioning were designed for empirical studies (for review see: Perry & Ianni, 1998). The Defense Mechanism Rating Scales (DMRS: Perry, 1990), Defense Style Questionnaire (DSQ: Bond, Gardner, Christian, & Sigal, 1983), and Defense Mechanism Inventory (DMI: Cramer, 1991) are examples of instruments that reflect three distinct methodologies (observer-rated, selfreport, & projective measure) used for measuring defensiveness. For a review of these

measures please see Cramer (2006), Hentschel, Smith, Draguns, and Ehlers (2004) and Perry (1993).

One defining trend over the years in psychodynamic psychotherapy is the idea that defenses are both out of immediate awareness and that these processes serve a protective function. Although all people use defenses at a fairly constant rate (Perry, personal communication, 2007), not all defenses perform their function equally. That is, some defenses are better at resolving conflicts that arise between opposing forces than others. As a result, some defensive processes became associated with insight and mental health (e.g., self-observation), whereas other defenses were associated with psychopathology (e.g., denial) (Bond & Perry, 2004; Maffei, Fossati, Lingiardi, & Madeddu, 1995; Perry, 2001; Vaillant & Drake, 1985).

Cramer (2001), in her attempt to distinguish the cognitive concept of coping from defenses, proposed that defenses are necessarily unconscious and are distinct from everyday coping behaviour precisely because they are outside the individual's awareness. Erdelyi (2001) states that while defenses can be unconscious there is a "fuzzy" boundary between the conscious-unconscious divide whereby defenses can operate between these two states depending on the situation.

George Vaillant (1971) was the first to propose that defenses exist on a continuum, whereby use of certain defenses is a sign of mental health and adaptive behaviour and other lower level or immature defenses may resolve the conflict in the short run but lead to more interpersonal difficulty if overly relied upon. Moreover, Vaillant (1993, 1994) hypothesized that all defenses can be adaptive depending on the situation in which they are utilized and that in certain extreme cases even supposed immature defenses can be quite adaptive.

Vaillant (1976, 1993) was also the first to investigate the notion that defenses were related to everyday functioning over the lifespan. His sample consisted of inner-city men who were either of middle or lower socio-economic status (SES) whom he followed from college into late adulthood. He found that as the men aged, they tended to use less immature defenses and rely more on mature defenses to manage their daily stress or anxiety. Furthermore, Vaillant (1976, 1993) and Vaillant and Drake (1985) found that men who continued to employ lower-level defenses were more likely to experience poor interpersonal relationships, and have more psychological distress in the form of depression and anxiety. As a result of this research, he conceptualized three distinct categories that a given defense mechanism could belong to: immature, neurotic or midlevel, and adaptive or mature. This research culminated in the development of a hierarchy of defenses (Vaillant, Bond, & Vaillant, 1986) that places individual defense mechanisms on a continuum based on the three groupings mentioned above. The defenses in this hierarchy have been found to be both empirically robust and clinically relevant (Soldz & Vaillant, 1998; Vaillant, 1993; Vaillant et al., 1986). Many, if not all, of the investigations on defenses that follow Vaillant's study use this conceptualization of defensive functioning and it can also be found in research instruments designed to measure defenses. Subsequent studies examined ways of refining definitions of defenses and linking them to psychological functioning, psychopathology, and psychotherapy.

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Relationship between Defense Mechanisms and Psychopathology

Anna Freud first proposed that the use of certain defenses could be linked to particular neurotic processes or symptoms (1937/1965). Although Anna Freud's thinking was somewhat linear and reductive, she did highlight the role played by defenses in psychopathological processes. Several years later, Kernberg (1976) described a group of borderline defenses associated with borderline personality organization as well as narcissistic personality disorder. Kernberg abandoned the idea that each symptom was associated with a defense and replaced it with a more bidirectional understanding whereby defenses were associated with pathological personality traits. Perry and Cooper (1989) used the DMRS to rate defenses based on clinical interviews and life vignettes and found that defenses from Levels 1-4 (Immature levels) were associated with psychological distress and symptoms, whereas mid-level defenses (e.g., intellectualization, devaluation) could be associated with either symptoms or adaptive functioning. This study was unique at the time because it showed the clear link that exists between the proportion of low-level or immature defenses and symptomology using observer-rated measures of defense mechanisms (Perry, 1990).

Throughout the 1990's and subsequent decades, the relationship between defensive functioning and Axis I/Axis II psychopathology became more clearly appreciated in the literature (Bond, 2004; Bond & Perry, 2004). Empirical studies found that patients diagnosed with dysthymia had a different defensive profile than those diagnosed with panic disorder (Bloch, Shear, Markowitz, Leon, & Perry, 1993; Busch, Shear, Cooper, Shapiro, & Leon, 1995). Specifically, Bloch and colleagues (1993) found more frequent use of narcissistic, disavowal, and action level defenses for individuals with dysthymia. At the level of individual defense mechanisms these patients used devaluation, projection, passive-aggression, and help-rejecting complaining. Busch and colleagues (1995) found that panic disorder patients were more likely than dysthymic patients to use reaction formation and undoing but not displacement. The authors suggested that the core pathology of the panic patients was the inability to tolerate anxiety, which leads to the use of those particular defenses. In a direct comparison of depressed and non-depressed individuals, Margo, Greenberg, Fisher, and Dewan (1993) found key differences between the two groups although defenses also seemed to depend on gender. The authors emphasized the role played by an "overly cheerful self-perception" in non-depressed participants.

Similarly, Akkerman, Karr, and Lewin (1992) found that the defenses used by patients with major depression were similar and changed over the course of treatment. Specifically, a significant reduction in the use of immature defenses was found for successfully treated patients with no change observed in neurotic and mature defenses. Spinhooven and Kooiman (1997) also found the use of projection to be associated with depressive disorders but not anxiety disorders and proposed this as a distinguishing feature of depressive symptoms. Vaillant (1993) also found evidence for the association between the use of immature defenses in general and having experienced at least one major depressive episode over their lifetime. Thus, there appears to be some evidence for the idea first put forth by Anna Freud, that specific neuroses or symptom clusters can be partly explained by the rigid adherence to certain defensive processes.

Watson (2002) showed that although specific defenses could be linked to psychopathology, results were partially based on gender. In particular, projection was the

strongest predictor of psychopathology in men whereas displacement was for women. Cramer also showed that men and women tend to use different defenses in their everyday lives. Whereas men tend to use more externalizing defenses, women rely more on internally-oriented defenses (Cramer, 1991). At least one study however found the exact opposite of Cramer (1991) when comparing depressed and non-depressed participants (Margo et al., 1993). Whether these differences are relevant for diagnosis and treatment planning however is not yet clear. Whereas differences between non-psychiatric men and women in defensive functioning have been recognized in the literature (Bullit & Farber, 2002; Drapeau, Thompson, Petraglia, Thygesen, & Lecours, 2011; Petraglia, Thygesen, Lecours, & Drapeau, 2009) it is not apparent whether men and women consistently use different defense mechanisms to mitigate psychological conflict. One possibility is that the different measures of defenses used in these studies may account for these findings. In fact, Perry and Hoglend (1998) have shown how defensive functioning measured from self-report and observer-rated measures may not be directly comparable.

In psychodynamic theory, defenses have consistently been linked to personality disorders (Bond, 2004; Bond, Paris, & Zweig-Frank, 1994; Bond & Perry, 2004; Bond & Perry, 2006; Devens & Erikson, 1998; Johnson, Bornstein, & Kurkonis, 1992; Lingiardi et al., 1999; Perry, 2001; Perry & Perry, 2004; Sammallahti & Aalberg, 1995; Sinha & Watson, 1999; Zanarini, Weingeroff, & Frankenburg, 2009). However, results linking the use of specific defenses to personality disorders (PD) vary depending on the type of methodology used to capture defensive functioning.

Despite conflicting findings and confusion regarding a definitive list of individual defense mechanisms, research has consistently shown that defensive functioning shows

both convergent and divergent validity with respect to psychopathology (Perry & Hoglend, 1998). The most important finding throughout most studies cited above is the concept that individuals diagnosed with personality disorders have lower Overall Defensive Functioning (ODF) scores. That is, a characteristic of PDs is over-reliance on specific levels or clusters of defenses that represent the lower range of the defensive hierarchy as outlined by Vaillant (1993) and others (Perry & Bond, 2006). Individuals diagnosed with either Axis I or II show different levels of defensive functioning than people without such diagnoses. Based on these findings, Vaillant (1994) pointed out the usefulness of using a thorough understanding of patient defense mechanisms to plan psychosocial treatments. Vaillant (1994) argues in favor of helping clinicians to pay specific attention to the types of defense mechanisms used by their patients so that clinicians assist their patients in discarding problematic defenses that are related to their psychopathology in support of more adaptive defenses.

Relationship between Therapeutic Technique and Defense Mechanisms

Several psychoanalytic thinkers have attempted to provide technical suggestions for working with patient defenses in psychotherapy. A number of published technical manuals exist that emphasize translating psychoanalytic theory into practice (Glover. 1955; Greenson, 1967; Jones, 2000; Langs, 1973; Luborsky, 1984; Strupp & Binder 1984; Wolberg, 1977). One such work by Greenson (1967) describes how to conduct psychotherapy based on psychoanalytic concepts, including defense mechanisms. He explains how therapists should make use of therapeutic techniques with their patients and the unconscious conflict that they present with in-session.

Prior to Greenson's (1967) text, the concept of working with defense mechanisms in psychotherapy was mostly discussed by advocates of ego psychology who debated analyzing the role of the ego in psychoanalytic psychotherapy. Weiss (1942) examined at length what defensive aspects he believed pertain to the ego and should be examined in the therapeutic process. He also suggested that therapists should pay special attention to "the depth of the defence, the specific dangers associated with the defence, the stratification of the various methods of defence, and their relation to that part of the ego with which we are in direct contact" (Weiss, 1942, p. 80). As a result, some of the first technical suggestions for therapists to consider when interpreting defenses were identified. Similarly, years later Lowenstein (1954) highlighted the importance of forging an alliance with the "healthy" part of the ego in order to overcome defenses and cure neuroses. Moreover, Hoffer (1954) emphasized the need for therapists to "become acquainted with those defence mechanisms which (the patient) employed when fighting his conflicts of childhood, and the anxieties arising from them" (p. 197). Hoffer (1954) stressed historical aspects of the development of the defense as deeper in consciousness since these parts would not be readily available to the patient until analyzed in-session with the psychoanalyst.

Weiss (1942), Lowenstein (1954), Hoffer (1954), and Saussure (1954) focused their attention on describing how defense mechanisms can be used to resist various aspects of the therapeutic process. Originally, Freud (1926) postulated that resistance exists in a step-by-step or layered fashion to obscure the patient's awareness of psychological conflicts at the unconscious level, at each level the analyst must overcome the new layer that presents itself, similar to peeling back the layers of an onion. Thus, the idea gained hold that defenses are not simply employed in conflicts outside of the therapeutic setting but are also an intricate part of the therapeutic process itself whereby individual defense mechanisms provide the method by which individuals resist awareness of unconscious conflicts. Since defense analysis is central to developing insight regarding these conflicts, it stands to reason that techniques designed to interpret defensive behaviour by patients are centrally important to therapeutic change.

The debate in the British Psychoanalytical Society between Melanie Klein and Anna Freud from 1941-1945 brought out important questions regarding the role of defenses and the techniques used to analyze them. Essentially, Klein (1946) introduced the idea that conflict could arise between opposing introjected objects not simply between impulses, which was the source of heated disagreement and debate for many years. In spite of these difficulties, the object relations approach still made large contributions to defense theory. For example, defenses such as projective identification, splitting, idealization, and devaluation all originate from this theoretical approach. Kernberg (1985) suggests that concepts such as defenses and resistance are intricate parts of the object relations approach. He also stressed that object relations was more of a "reformulation" of the original technical implications set forth by early ego psychology advocates such as Fenichel (1941) rather than a straightforward replacement of it.

Years later, the intersubjective school of thought raised doubts as to whether it was appropriate to discuss the ego as an entity in and of itself (Stern, 2005). Furthermore, if we assume defenses exist in a layered fashion where certain defenses actually defend against other defenses deeper in consciousness than we are forced to accept a more problematic assumption that only the analyst can "know" what is obscured and what lies beneath each subsequent layer.

Despite the antiquated language, and the over-reliance on the reified concept of an ego as something tangible, ego psychologists made several important contributions during the 50's and 60's that endure until today. Ego psychology stressed the centrality of defenses in psychotherapeutic technique and pushed psychoanalysts to think critically about what patients are defending against and how to go about drawing attention to it insession. The ego psychology tradition highlights the role of the therapist as one of "uncovering" unconscious conflicts and analyzing the resistance or defense that disguises a genuine understanding of them.

It was also during this period that the first attempts were made to adapt specific therapy techniques to individual defense mechanisms or more generally, personality types with specific ways of defending. Liberman (1966) in a paper entitled "Criteria for interpretation in patients with obsessive traits" underscored the need to make interpretations in the form of a "personal communication" (p. 216) and described in detail how his patient's defenses interconnect to form the obsessive traits that were a source of severe anxiety in this individual. Morgenthaler (1966) also used a case study to highlight the role of the therapist in breaking through the defenses of obsessional patients in such a way that would get them interested and invested in the psychotherapeutic process. From the object relations approach, working with defenses such as projective identification, Ogden (1982) pointed out how therapeutic technique should be adapted for patients who rely heavily on this defense mechanism. Ogden explained how using "verbal interpretations" (Ogden, 1982, p. 77) or interpretations that make use of spoken words,

may be ineffectual with this defense since these patients cannot make use of verbal information.

In spite of the articulate and thought-provoking critique on ego psychology, certain advocates continued to call for more study on the psychoanalytic techniques associated with defenses or "ego analysis". Paul Gray (1973) wrote during this period about a "lag" that he felt existed in psychoanalysis with respect to the interpretation of the defensive functioning of patients. Gray (1973, 1982, 1990, 1994, 1996) emphasized this topic throughout his career and believed that without detailed attention to defenses, true change could not occur. He called his approach "close-process attention". However, while Philips (2006) does not challenge the idea that defenses are an intricate part of therapeutic technique, he criticizes Gray for having what he refers to as a "narrowing scope" with respect to his thinking. Gray ignores much of the work on defense mechanisms that evolved from other schools of thought around him and more importantly, Gray ignores the Kleinian contributions of defenses such as splitting, denial, and projective identification (Philips, 2006). Philips (2006) also comments that Gray puts forth a definitively "one-person" psychology, which ignores important issues that are alive in the session between the therapist and patient, namely countertransference.

Despite these attempts to reconcile theory and practice in psychoanalytic psychotherapy, the question of how therapists should use therapeutic techniques with patient defenses remains at least in part unanswered. Specifically, an understanding of which techniques in psychodynamic psychotherapy are responsible for promoting change and how this process occurs is lacking.

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Psychodynamic psychotherapy seeks to address the unconscious aspects of an individual's personality that contribute to psychological suffering (Summers & Barber, 2010). Psychodynamic techniques are usually aimed at fostering patient insight that helps produce changes in the individual's overall personality. As outlined above, research on defense mechanisms has linked the use of specific defenses to healthy everyday functioning, while other defenses have been associated with personality disorders, depression, anxiety disorders, and interpersonal difficulties (Bloch, Shear, Markowitz, Leon, & Perry, 1993; Bond, 2004; Lingiardi et al., 1999; Bond & Perry, 2004; Spinhhooven & Kooiman, 1997). Psychodynamic therapists attempt to facilitate change in their patients' defenses by using therapeutic techniques to address the distortive process by which defense mechanisms operate.

Use of interpretive techniques during psychotherapy is hypothesized to increase an individual's insight regarding their own unconscious processes (Jones, 2000). This insight is considered to be a fundamental aspect of bringing about meaningful change according to dynamic theory. As Etchegoyen (2005) has pointed out "insight is a new connection of meaning, which changes the participant's idea of himself and of reality" (p. 672). Insight relates to many aspects of the psychotherapeutic process beyond defense mechanisms, most notably transference.

Studies that have investigated interpretations in psychodynamic psychotherapy often focused on transference interpretations that are used mainly to point out some aspect of the therapist-patient relationship (Hoglend et al., 2008; Ogrodniczuk et al., 1999; Piper et al., 1993). However, transference interpretations have been the subject of intense debate in the literature over the last decade, with differing views put forth by the Norway group (Hoglend et al., 2008) and earlier studies (Ogrodniczuk et al., 1999; Piper et al., 1993), because these studies have supported contradictory conclusions regarding the effectiveness of these interventions. For example, Ogrodniczuk et al. (1999) and Piper et al. (1993) showed that transference interpretations were associated with poor outcome for individuals with low quality of object relations. Furthermore, at least one review concluded that too many transference interpretations can damage the therapeutic alliance (Ackerman & Hilsenroth, 2001). On the other hand, Hoglend et al. (2008) conducted an experimental dismantling study that demonstrated the opposite, namely that individuals with low quality of object relations who received a moderate number of transference interpretations actually had better outcome than those who did not receive these interpretations.

Most psychodynamic therapists agree that attention to defenses or defensiveness should be one of the defining features of this modality regardless of the length, frequency, intensity, or theoretical underpinnings of the particular approach (Weiner & Bornstein, 2009). As Summers and Barber (2010) have also pointed out, it is assumed that patients will demonstrate more "mature defense use" when psychodynamic psychotherapy is successfully completed; whether or not this is the result of interpretive techniques directly aimed at defensive processes remains to be seen. In addition, there is empirical evidence to support the claim that defenses change over the course of psychotherapy (Hoglend & Perry, 1998; Perry, 2001; Perry & Henry, 2004; Roy, Perry, Luborsky, & Banon, 2009). However, precisely how this maturational process is achieved or how therapists engender this change in psychotherapy is not yet clearly understood. In an empirical investigation of what occurs when therapists focus on patient defense mechanisms, Winston, Winston, Samstag, and Muran (1993) examined two forms of short-term dynamic psychotherapy and concluded that defense mechanisms change as a function of "sustained" or frequent interpretation. Years later, a study by Hersoug, Bogwald, and Hoglend (2005) supported this result with the finding that higher numbers of interpretations were associated with a decrease in maladaptive or lower-level defenses. One limitation of these studies is that neither one examined characteristics of the interpretations. Characteristics of interpretations include variables such as length, vocabulary, content, delivery, and timing of the therapeutic intervention. The concept of frequency or "how much?" is often the only variable of the interpretation examined.

In the past several decades, researchers have invested more time in studying the effect that techniques and defensive functioning have on the therapeutic alliance and psychotherapy outcome (Despland, de Roten, Despars, Stigler, Perry, 2001; Foreman & Marmar, 1985; Hersoug, Hoglend, & Bogwald, 2004; Hersoug, Sexton, Hoglend, 2002; Siefert, Hilsenroth, Weinberger, Blagys & Ackerman, 2006). The objective for this focus has been to relate specific therapist techniques and patient variables to important pantheoretical concepts in psychotherapy such as positive outcome and the therapeutic alliance. In an early study of this relationship, Foreman and Marmar (1985) found that more frequent addressing of defenses by therapists was associated with improvement of an initial poor alliance in psychodynamic psychotherapy. The authors did not address outcome in their study since the sample consisted of only six participants.

The Lausanne Early Alliance Project developed an empirical model in order to understand what role therapist adjustment of technique to patient defensive functioning played in the early part of alliance development (Despland et al., 2001). The authors found that a ratio could be calculated for each therapist-patient dyad that placed therapist techniques on a hierarchy from supportive to interpretative and then compared it to the patient's overall defensive functioning. Neither therapeutic technique alone, nor defensive functioning alone, differentiated between groups but the combination of both was predictive of either a low or high alliance group. Despland et al. (2001) concluded that therapists should use supportive interventions with immature defenses of patients and limit the use of interpretative interventions to mature defenses in order to create the optimal condition for a strong alliance.

Limitations and Gaps

Subsequent studies interested in replicating the empirical model of adjustment failed to corroborate the earlier findings by Despland and colleagues (2001). Hersoug et al. (2004) criticized the study by pointing out that what was considered to be a "poor adjustment ratio" in some cases was associated with a stronger alliance. In another study by Hersoug, Bogwald, and Hoglend (2003), the authors found that the combination of maladaptive defense use and a weak therapeutic alliance was associated with a greater proportion of defense interpretations, not less as would be expected from the Despland et al. (2001) study. One possible explanation for this finding may be that these studies examined different forms of psychotherapy. Despand et al., (2001) examined the foursession brief psychodynamic investigation (BPI: Gilléron, 1997), while Hersoug et al. (2003, 2004) examined forty sessions of short-term dynamic psychotherapy (STDP). The concept of therapist adjustment to patient defensive functioning may require a novel approach that can examine the characteristics of specific techniques used in-session, as opposed to the use of techniques across entire treatments. This would potentially provide a more detailed picture of what transpires in-session.

While studies have examined the effect that therapist technique and patient defensive functioning have on the overall strength of the alliance, they may neglect the possible effects of session-to-session changes in the alliance. Safran and Muran (1996, 2000) have highlighted the importance in psychotherapy of abrupt negative shifts in the alliance referred to as therapeutic ruptures or comparably sudden positive shifts referred to as repair sessions. Empirical studies that only use overall alliance scores in the "overall strong" or "overall weak" category may obscure the effect that these important sessions have on therapist interpretations and patient defenses by averaging alliance scores over time. Therefore, more research is required to highlight the process by which these important sessions affect the expression of defensive behavior by patients or choice of intervention by therapists.

Rationale for the Proposed Study

Research has convincingly demonstrated that defense mechanisms can be effectively studied in empirical studies as shown by the proliferation of defense measures developed in the field over the past thirty years (for a review see Hentschel et al., 2004). What is needed is a more detailed understanding of how therapists should interpret patient defense mechanisms according to psychodynamic theory, so that empirical investigation can reveal whether what theory assumes should be done actually has an effect on defense mechanisms, as well as other pertinent variables like the therapeutic

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alliance and outcome. For example, several authors (Greenson, 1967; Jones, 2000) have written guides for practicing psychodynamic therapists, which contain procedures on how to interpret defense mechanisms. However, these guides have never been compared and contrasted to determine whether consensus exists in the field. Furthermore, studies have failed to investigate whether many of these clinical axioms stand up to modern empirical investigation, which has left a gap in the field between psychodynamic theory and psychodynamic practice.

As outlined above, research has shown that defense mechanisms change in an expectable fashion over the course of psychotherapy (Hoglend & Perry, 1998; Perry, 2001; Perry & Henry, 2004; Roy et al., 2009; Winston et al., 1993). However, how and why they change remain only partially answered questions. Therapist use of defense interpretation is assumed to be partially responsible for this change (Hersoug et al., 2003, 2004). Nonetheless, interpretation is multifaceted and often studies have failed to account for important aspects of these interventions. By simply averaging therapeutic techniques across treatments, essential elements of psychotherapy that play out at the session level may be lost. Psychodynamic psychotherapy has a vast literature that contains important suggestions, guidelines, and strategies for working with defense mechanisms that could help inform the direction of empirical research in psychodynamic psychotherapy.

Overall Research Objectives

This thesis seeks to address the gap that exists in the literature between research and practice in psychodynamic psychotherapy. More specifically, it aims to draw a direct link between theoretical principles garnered from the existing psychotherapy literature on the use of techniques with defense mechanisms, and the empirical investigation of these principles within the framework of low-alliance or high-alliance psychotherapy sessions. These sessions were chosen due to the established link that exists in the literature between the therapeutic alliance and psychotherapy outcome (Hatcher, 2010; Horvath & Symonds, 1991).

The subsequent sections of the thesis are divided into four chapters (Chapters 2 - 5): Chapter 2) review/synthesis of the literature into clinical principles (Manuscript 1), Chapter 3) empirical investigation of defense interpretation depth (Manuscript 2), Chapter 4) empirical investigation of defense interpretation depth revisited (Manuscript 3), and finally Chapter 5) implication for psychology and psychotherapy. In Chapter 2, the literature on defense mechanism was thoroughly reviewed and synthesized into a series of clinical principles. This study, which appears next in the thesis, was qualitative in nature and sets the backdrop for the second and third studies in the thesis. Chapters 3 and 4 sought to empirically test one of the central principles derived from Chapter 2. Finally, Chapter 5 provides a general discussion of the findings and implications for the field.

CHAPTER 2- THE DEVELOPMENT OF PRINCIPLES DERIVED FROM THEORY ON THERAPEUTIC TECHNIQUE AND DEFENSE MECHANISMS

Running Head: THEORETICAL PRINCIPLES ASSOCIATED WITH DEFENSE

Ten Principles to Guide Psychodynamic Technique with Defense Mechanisms: An

Examination of Theory, Research, and Clinical Implications

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Abstract

Defense mechanisms have stood the test of time as important psychodynamic constructs. Despite their importance, there has been little effort directed at consolidating theory, research, and practice for defense mechanisms. This review aimed to address this gap. More specifically, it aimed to identify and integrate different scholars' ideas, recommendations or principles on how to address defense mechanisms in therapy. It also aimed to document the existing empirical evidence for these principles and to translate these principles into technical guidelines that clinicians can use. A literature search was completed using PsychInfo, Psychoanalytic Electronic Publishing (PEP), and Medline. Consensual qualitative research (CQR; Hill, Thompson, & Nutt-Williams, 1997; 2005) methodology was drawn upon to provide a basic structure for the retrieved sources. A set of 10 principles pertaining to working with patient defenses was identified.

Keywords: defense mechanisms, technique, defense interpretations, psychodynamic therapy

Ten Principles to Guide Psychodynamic Technique with Defense Mechanisms: An Examination of Theory, Research, and Clinical Implications

Meta-analyses have demonstrated the efficacy and effectiveness of psychodynamic psychotherapy (e.g., de Maat, de Jonghe, Schoevers, & Dekker, 2009; Leichsenring & Rabung, 2004, 2008; Shedler, 2010). While continued controlled studies demonstrating the effectiveness of psychodynamic psychotherapy are both needed and ongoing, there have also been calls by scholars for more research examining the process by which psychodynamic psychotherapy works (see Shedler, 2010). Therefore, importance is increasingly being placed on the specific techniques, interventions, and processes within dynamic theoretical frameworks and how these relate to therapeutic outcome.

Along with transference interpretations, defense interpretations are amongst the core technical ingredients found in psychodynamic psychotherapy. This is true in both long-term (e.g., Greenson, 1967; Langs, 1973) as well as short-term (e.g., Davanloo, 2000) models of psychodynamic psychotherapy. The overall aim of these two technical interventions is to make the unconscious or latent material conscious, and point out how the distortive processes that transference and defense mechanisms involve can cause and maintain psychological duress (Glover, 1955; Greenson, 1967; Langs, 1973; Schafer, 1992; Wolberg, 1977). Although there is extensive literature on the general concept of interpretation in psychodynamic psychotherapy (Etchegoyen, 2005; French, 1970; Gill & Hoffman, 1982; Jones 2000) including on transference interpretations (Wachtel, 2011), much less is known about defense interpretations. This is surprising given the amount of research that has been conducted on defense mechanisms in general. Indeed, a flurry of

research activity over the past few decades has been dedicated to studying defensive functioning. This research has led to several reviews that synthesize the theoretical, methodological, and empirical aspects of defenses (see Cramer, 2006; Hentschel et al., 2004; Vailliant, 1993). There is mounting evidence showing that patients who undergo successful psychodynamic treatment demonstrate more adaptive defense use (Albucher, Abelson, & Nesse, 1998; Ambresin, de Roten, Drapeau, & Despland, 2007; Bond & Perry, 2004; Cramer & Blatt, 1993; Drapeau, de Roten, Perry, & Despland, 2003; Hersoug, Sexton, & Hoglend, 2002; Perry, 2001; Roy, Perry, Luborsky, & Banon, 2009; Winston, Winston, Samstag, & Muran, 1993). Furthermore, the use of mature defenses has been shown to be associated with healthy psychological and physical functioning (Vaillant, 1992, 1993, 1994; Vaillant & Vaillant, 1990).

Though defense mechanisms are considered a pillar of psychodynamic theory, there remain significant gaps that need to be addressed. For example, there is no definitive text that outlines specific technical guidelines for how therapists should deal with defenses employed by patients. Without such a text, work that integrates clinical acumen derived from theory and empirical studies is lacking. As a result, very few resources are available to clinicians that show how recent empirical findings can inform the contemporary practice of psychodynamic therapy. In order to synthesize current thinking on how therapists should intervene with patients' defenses in psychotherapy, this review set out to identify therapeutic principles by examining theoretical and empirical sources that pertain to therapeutic interventions aimed at patients' use of defenses. The goal of creating this list of principles was twofold. First, it could help in establishing consensus amongst different scholars on how to address defense mechanisms in therapy, and highlight points of contention. Second, it would allow for the examination of the existing empirical evidence for these principles in order to spur future research into these principles.

Method

Literature searches were performed using PsychInfo, Psychoanalytic Electronic Publishing (PEP) web, and Medline with the following keywords: "defense", *or* "defense mechanism" *and* "therapeutic technique" *or* "interpretation". No specific time period was used for literature searches. In addition, a number of other sources were obtained through informal channels by consulting experts in the field, including through listservs of psychodynamic researchers (i.e., Association for Psychodynamic Research, Society for Psychotherapy Research).

Figure 1 contains a graphical representation of the process by which the literature was retrieved and selected. A team of three researchers, including one senior psychodynamic researcher and clinician and two advanced doctoral students, identified and examined 136 sources. These sources included 45 books, 51 empirical articles, and 40 theoretical articles that were reviewed to determine if they provide information on how to work with patient defenses in psychotherapy. The team discarded obvious false positives because they were unrelated to therapeutic technique and defenses. Subsequently, 29 books, 49 empirical articles, and 19 theoretical articles were retained. These sources were then thoroughly examined for core ideas, suggestions, or guidelines by authors having to do with therapeutic technique and patient defenses. One researcher independently completed the review of all texts; a second researcher completed a similar
analysis for approximately 70% of all materials. The two raters worked independently. Each rater recorded detailed notes and bibliographical information including author, text (actual citation), and page number. At this point, the material identified ranged from several phrases in a paragraph to a few pages, all of which had some bearing on therapeutic technique and defense mechanisms. The resulting information was independently compiled in a table by each rater; references that stated similar concepts were grouped together. Information that was unspecific or too vague was removed. For example, a number of historical case studies that were examined (De Saussure, 1954; Hoffer, 1954; Liberman, 1966; Morgenthaler, 1966; Weiss, 1942) were removed because their specific focus on an individual case made it difficult to extract broad themes. The two final tables, one for each of the two raters, were then compared in a series of consensus meetings.

The next step involved a comparative analysis where similar themes were grouped together inspired by the guidelines established by Hill and associates (1997; see also Hill et al., 2005) for consensual qualitative research (CQR). CQR involves an inductive process by which conclusions are built up from the data; the consensual process helps to reduce the risk of researcher bias. While Hill and colleagues (1997, 2005) have made suggestions for pre-set themes or domains based on Strauss and Corbin's work (1990), in this review the domains were abstracted from the tables to reflect core ideas about working with patient defenses. Grouped themes had to have at least two different sources stating similar or equivalent information in order to be considered a principle. Each rater first worked independently to identify principles, then met for discussion. Once the raters reached consensus on the principles, an auditor reviewed the principles identified by each rater and those agreed upon in their consensus meeting. Another consensus session was then held. Agreement was found on eight principles. In comparing other principles that had been highlighted by each of the raters, the group concluded that two additional principles could be agreed upon, for a total of 10 principles. Table 1 shows the ten principles with a breakdown of the sources that were included in the final list of principles.

Results

The analysis led to the identification of 10 principles of therapeutic technique related to patient defenses. Each one is described below, along with its clinical implications; the empirical evidence that supports it is also examined.

1. Consider the "Depth" of an Interpretation.

One common element that is consistent among various authors is Freud's original proposition from the "The Interpretation of Dreams" (1900) identifying the major goal of psychoanalytic work as making the unconscious conscious. Through the employment of interpretation on the part of the therapist, patients can understand their typical ways of defending thus rendering the defensive processes more controllable, less automatic, and bringing these processes into their conscious awareness (Schafer, 1992). Because the employment of most defense mechanisms is analogous to a form of self-deception, therapists can help their patients by interpreting at this level and decrease the more problematic forms of self-deception that lead to symptoms of psychopathology.

Fenichel (1941, 1945) was the first to propose what Greenson (1967), Langs (1973), and Wolberg (1977) would later expand upon, namely leaving out "deeper"

material until later in therapy. The psychodynamic concept of *depth* here refers to those aspects of the patient's psychic structures that lay more deeply imbedded in the unconscious and are consequently more difficult to bring to light. Fenichel (1941) restructured the concept of interpreting from surface to depth on the basis of two critiques of Reich's (1936) advice to repeatedly work through characterological defenses in order to arrive at more deeply unconscious material (Etchegoyen, 2005). First, attacking character armour, as Reich puts it, can lead to narcissistic wounds on the part of the patient because these character defenses are interwoven into the personality structure and are therefore ego-syntonic. Secondly, the analysis of character defenses can itself turn into a sort of resistance in the therapeutic process. Reich (1936) referred to the term "latent negative transference" to describe what he believed were destabilizing interpretations that patients were not ready to hear which subsequently damaged the working relationship. Thus, Fenichel's (1941, 1945) suggestions can be viewed more as a technical refinement of Reich's (1936) earlier approach rather than a complete rejection of it.

Langs (1973) and Lowenstein (1951) arranged interpretive work with patients into two different yet related technical tasks. The first technique in this process is to use the "clarification" as a means of allowing patients to verbalize and elucidate their own defensive process without addressing any underlying meaning or unconscious process at work. At this point, therapists should confront or draw attention to the process of what patients are doing during the course of therapy; however, no deeper unconscious material (e.g. wishes, fantasies, or impulsive urges) should be included in the therapist interpretations until a more thorough understanding of the unconscious conflict that underlie the defense is evident. The second technical task in this process involves deeper exploratory work that is achieved through the use of interpretation which is considered essential to changing problematic defensive patterns in patients.

Other authors have made statements similar to Lowenstein (1951, 1954) and Langs (1973) about confrontations and clarifications (Reid, 1980; Sandler & Freud, 1985), making it probably the most recognizable therapeutic axiom regarding technical considerations in psychoanalytic psychotherapy with respect to defense mechanisms. In other words, therapists should proceed in their work from "surface to depth" (Fenichel, 1941) and address those aspects of patient material that are readily discernible first, and then move on to deeper more unconscious material. Aspects of this axiom can be found in numerous texts (see Table 1) that discuss defensive functioning and usually serve as an overall guiding principle of how to work with defenses over the course of psychotherapy.

The axiom is based on the assumption that working with the unconscious is akin to unpeeling an onion. As each layer is removed we find another layer waiting to be examined, understood, and analyzed. In some cases, it is referred to as addressing "the defense as opposed to what is being defended against" (McWilliams, 1994; p. 304), which implies that therapists should avoid naming material to their patients that they have reason to believe will be too anxiety provoking or difficult to accept until a point in therapy when the patient is ready to accept such material.

The surface to depth idea can also be used to organize the order in which the therapist uses therapeutic techniques. For instance, Perry and Bond (2005) suggest that when working with patients diagnosed with personality disorders, the therapist should structure his or her techniques accordingly from surface to depth with "lighter"

interventions such as questions and clarifications at first, before moving on to interpretive work in order to give the patient enough time to assimilate understanding in a step-bystep approach.

The responsibility of the therapist to address defensive behaviour does not end at confrontation according to Langs (1973). He suggests that the next step to dealing with defenses is the action by which deeper understanding and insight helps patients give up the more problematic defenses for more adaptive ones. He proposes that interpretations be used once the more unconscious material is better understood by the therapist and take precedence over confrontations after that point.

Not all authors agree regarding the usefulness of interpreting defenses in this manner. For example, Vaillant (1993) questions whether individuals with character pathology can actually benefit from "deeper" interpretations of the variety that Greenson (1967) and Langs (1973) discuss. In fact, Vaillant states that especially in the early phases of treatment, the use of any form of interpretation in general can be "disastrous" (Vaillant, 1993, p. 70) because these patients experience interpretations as critical attacks by the therapist. Even advocates in favour of the use of interpretations warn against "too rich a mixture of interpretative techniques early on" (Perry, 2001, p. 659) with this population as it may negatively influence the process of therapy. Specifically, for patients who tend to rely mostly on "immature" or "lower-level" defenses, the concept of management is more useful that one of uncovering. Management assumes a more limit-setting and active approach to helping patients, one that does not confront the behaviour head on but rather encourages the individual to change problematic defense patterns. On the other hand, interpretations, especially with reference to depth, are more indicative of

confrontation and thus may be too anxiety provoking for at least those patients with more serious psychopathology. However, it should be noted that Vaillant's (1993) suggestions are not directly related to any empirical investigation and he focuses solely on defenses used by patients diagnosed with personality disorders.

Implications for Practice and Empirical Evidence

This principle suggests that therapy should unfold in such a way that deeper material is presented to patients as treatment progresses. This is especially true when patients are relatively well functioning and do not rely too heavily on immature defenses to manage unconscious conflict. Therapists should refrain from using deep interpretations in psychotherapy for those patients with immature defense patterns, such as individuals diagnosed with personality disorders. This would be particularly true early in treatment.

Despite the promising theoretical material presented thus far for informing clinical practice it should be noted that there is little, if any, empirical evaluation of depth of interpretation and change in defensive functioning.

2. Intervene with Patients' most Prominent Defenses.

The second principle suggests that therapists should confront more prominent defenses whenever they are obvious especially when these defenses are obscuring important repressed material (Langs, 1973). Essentially, because all individuals use a multitude of defenses in any given psychotherapy session, therapists should focus on those defenses that seem to be most closely related to conflicts associated with symptoms, anxiety, presenting problems, or other difficulties associated with functioning. Furthermore, therapists should address both characterological defenses as well as those that are "out of character" because they are also most likely related to a symptom (Greenson, 1967).

Implications for Practice and Empirical Evidence

The clinical implication of this principle is for therapists to pay attention to their decision-making process when deciding to intervene with one particular defense of a patient as opposed to another, and how this decision affects the overall outcome or progress of psychotherapy.

Despite the claims by both these clinician-theorists (Langs & Greenson), very little research has examined how therapists choose to intervene with patients' defenses during psychotherapy sessions and what exactly constitutes the "most prominent defenses" of a patient. For example, it is unclear if prominence refers to the most frequently used defense, least frequently used, or atypical defense, or rather if intervention should depend on the degree to which a defense is considered developmentally adaptive (i.e., defensive maturity). The most frequently used defense in this case refers to the defense the patient employs in-session most often and thus indicates some aspect of the patient's habitual way of responding. Least frequent would indicate defenses that arise rarely but with some level of predictability. Finally, an atypical defense would be when a patient uses a defense in a moment or situation that appears out of context given their character and what the therapist understands of their psychological organization. These questions remain largely unanswered in the literature at present.

3. Interpretations should begin with Defenses used as Resistance.

One readily identifiable principle found was that those defenses seen specifically as resistance in-session should be addressed first by therapists in psychodynamic

psychotherapy (Gill & Hoffman, 1982; Gray, 1994; Greenson, 1967; Kaechele & Thomă, 1994; Langs, 1973; Reid, 1980; Weiner & Bornstein, 2009; Wolberg 1977). Resistance is defined as any defensive process aimed at interfering with the natural unfolding of therapy and thus prevents the further exploration and elaboration of unconscious material (Lowental, 2000). Although resistance is defensive in nature, because it keeps certain affects, thoughts, ideas, or impulses from consciousness, it is only applicable when discussing the therapeutic setting. As Blum (1985) has accurately stated, "the concept of defense is broader than that of resistance since resistance is a treatment function that takes meaning from the analytic process" (p. 13). Thus, while patients will use various defensive processes in their everyday life, they are only classified as resistance when these processes take place within the context of therapy. In fact, Freud (1937) himself made this distinction quite clearly by stating, "defensive mechanisms directed against former danger recur in the treatment as resistance against recovery" (p. 238).

Some short-term approaches to psychodynamic psychotherapy, such as the ones proposed by Davanloo (2000), Malan (1979), and Sifneos (1987) underscore the fundamental role of the clinician as that of addressing resistance. As Weiner and Bornstein (2009) suggest, often pursuing or interpreting patients' resistance is "more fruitful than a patient's recalled memory" (p. 173). Gray's (1994) close-attention processing approach to psychotherapy also focuses almost entirely on resistance. *Implications for Practice and Empirical Evidence*

The implication for practice for this principle is clear: when a defensive process is interfering with therapy it should be addressed first so as not to hamper or interrupt the treatment. No real therapeutic progress is possible until resistance is overcome since by its very nature resistance blocks the progression of psychotherapy. Examples of this type of phenomenon include arriving late for sessions, cancelling appointments, inappropriate silences, or therapeutic ruptures.

Although there is widespread acceptance of this principle in relation to technique, and several case histories (De Saussure, 1954; Hoffer, 1954; Liberman, 1966; Morgenthaler, 1966; Weiss, 1942) are presented to support the hypothesis that resistance should be addressed first, there is no empirical evidence for this claim in the literature. Given our analysis of the sources, it seems apparent that the concepts of resistance and defense are often confused in the literature and there is no current methodology available for differentiating between the two.

However, the short-term approaches mentioned above (e.g., Davanloo) have an emerging evidence base supporting their overall effectiveness for patients diagnosed with a multitude of disorders including depression, anxiety, somatic disorders, and personality disorders (Abbass, Kisely, & Kroenke, 2009; de Maat et al., 2009; Leichisenring & Rabung, 2004, 2008; Shedler, 2010). Although these studies are not directly related to the principle discussed, they indirectly suggest that the investigation of resistance in psychotherapy is a potentially fruitful avenue of study.

4. Attend to Defenses used both Inside and Outside of the Therapeutic Hour.

The fourth principle refers to the difference between those defenses used within the therapeutic hour, which includes defenses used in-session not pertaining to resistance, as well as those defenses that patients recount from their everyday lives. For example, both Langs (1973) and Greenson (1967) propose that therapists should in fact acknowledge when "reality-based" problems are influencing the defensive behaviour of patients. Wolberg (1977) indicates that current sources of stress (outside the therapy), and their interaction with personality needs and defenses be addressed before therapy can unfold in a productive fashion. These authors imply that what unfolds outside of therapy is of value and understanding the defensive processes that patients recount from their "outside" lives could be an equally valuable pursuit in-session.

This is in line with more recent work on defenses by Vaillant (1993) who suggests that events from outside the therapeutic hour should not only be acknowledged but also dealt with before systematic intervention in-session of defenses is undertaken. The author explains that stressful life events could actually make a patient appear more "defensive" in-session than what their typical personality would suggest. An example of this situation would be if a patient describes using the defense of splitting in their everyday life but no evidence of splitting is observed during the session. The therapist must choose whether or not to make this part of the therapeutic work. Once externally based problems are under control, then patients are in a position to address their internal world. Vaillant (1993) maintains that this is the only way for patients who suffer from substance abuse problems or are diagnosed with personality disorders to benefit from therapy.

However, Gray (1973, 1982, 1990, 1994, 1996) rejects this approach to psychotherapeutic technique and pinpoints the therapeutic relationship as the only true context for interpreting defenses to patients. Although Gray is discussing a more traditional psychoanalytic approach to therapy than Vaillant, they both agree that therapists need to make a distinction when making interpretations regarding the setting in which the patient is using the defense. This in turn should inform the practice of psychotherapy by directing the use of specific techniques accordingly. Where Gray suggests that therapists interpret almost exclusively inside the therapeutic setting, Vaillant argues that this would ignore a number of important events that are outside the therapeutic context.

Malan (1979) further illustrated the importance of this distinction. He proposed a schema to demonstrate psychodynamic conflict that he considered the overarching principle of psychodynamic psychotherapy. This schema involves two triangles: the triangle of conflict and the triangle of persons. The triangle of conflict is comprised of three poles: defenses, anxiety, and feelings whereby defenses and anxiety block the expression of feelings. The triangle of persons is comprised of three poles: therapist, current persons (e.g. spouse/partner, boss, friends, children) and past persons (e.g. family of origin: parents, siblings, relatives). The triangle of persons is where psychodynamic conflicts are experienced. Therefore, within the triangle of persons, defenses can manifest themselves with the therapist (inside therapy) and with current or past persons (outside therapy) and both are of importance to treatment. The ability of the therapist to effectively explore how intrapsychic conflicts play out amongst the triangle of persons is important in helping patients become aware of the pervasiveness of their patterns and how these patterns play out in multiple relationships in their lives both past and current. Implications for Practice and Empirical Evidence

Clinicians should focus more closely on the interpersonal process of defenses within the therapeutic hour with patients who are relatively high functioning and try to get patients to recognize how they use defensive strategies exhibited in everyday life within the therapeutic context. This follows from Malan (1979) and emphasizes the importance of integrating the different poles in the triangle of persons. Conversely, for

those patients with immature defense profiles, clinicians should first examine potential environmental stressors (e.g., unemployment, divorce, financial difficulties, etc.) that could be contributing to less mature management of conflict before moving on to the process outlined above.

This principle has not been investigated in the literature and is based predominately on theoretical assumptions and expanded upon in case examples by clinicians (Vaillant, 1992).

5. Consider the Timing of Interventions.

The question of timing is an important aspect of psychodynamic technique with respect to the use of interpretation. Many, if not all texts that aim to educate practitioners regarding technique use invariably discuss the intricacies involved in choosing the correct timing when formulating one's hypothesis about the patient, and then vocalizing it during the therapeutic hour. This issue of timing can be divided up into two subcategories. First, the global idea of timing examines when to focus on the defensive functioning of patients over the course of the entire therapy. This would include both shorter and longer therapy durations. The second aspect of timing has to do with choosing the correct moment within the session to interpret.

With respect to the more global idea of timing, Reid (1980) states that therapists should address defenses in the middle phase of long-term therapy so that the alliance has had sufficient time to develop before the more uncovering and slightly more anxiety-provoking aspects of defensive behaviour are pointed out. Reid (1980) also states that early interpretation is neither helpful nor harmful. Langs (1973), however, has suggested that early interpretation can damage the alliance and should be avoided when possible.

Similarly, therapists should not address defenses too late in therapy as there will not be sufficient time to work through the material and thus may be more harmful to patients. Glover (1955) concludes that although defenses are "focused on" during the middle phase of therapy, they should be interpreted throughout therapy.

There is much less work aimed at understanding the issue of when to interpret during a psychotherapy session. Reid (1980) suggests the beginning as the most appropriate so as to allow enough time for patients to digest and understand the information. However, if patients are on the verge of gaining insight regarding their defensive behaviour on their own, the therapist should aid the process with an interpretation regardless of when this occurs during the session.

Implications for Practice and Empirical Evidence

Much of psychodynamic psychotherapy training manuals teach this principle by getting trainees to judge when the patient is "ready to hear" certain conclusions the therapist has made (Luborsky, 1984; Strupp & Binder, 1984). Therapists should be aware of patient readiness, place in the treatment (i.e., early, middle, late), as well as timing during the session.

Additionally, the application of this principle depends on the type of psychodynamic therapy a clinician is practicing as it will determine how and when a therapist should address defenses. For example, working within an intensive short-term dynamic therapy model (e.g., Davanloo's approach), therapists would interpret defenses much earlier in the process of therapy and with more frequency and intensity (e.g., the 'pressure and challenge' technique) (Davanloo, 2000). Hersoug, Bogwald, and Hoglend (2003) conducted a study to determine if patient characteristics (e.g., defenses) were associated with the use of specific psychotherapeutic techniques. They found that defenses tended to be interpreted during the middle phase of brief dynamic therapy (approximately 1 year), although individual differences between therapists were significant. Another study of short-term dynamic therapy (Winston et al., 1993) found that "sustained intervention by the therapist" throughout therapy was found to be more predictive of change in maladaptive defenses. Winston et al. (1993) suggests that timing is based less on the idea of "readiness to hear" and more on the idea that constant dosage of interpretations is required. Since dosage is essentially related to timing in that "how much" is a function of "when" the authors are arguing in favor of the liberal use of interpretations in short-term dynamic therapy throughout the course of treatment and not simply in the middle phases as suggested by Hersoug et al. (2003). It appears that the question of timing shows promise but requires further investigation.

6. Consider the Affect Associated with the Defense when Appropriate.

This principle refers to the essential role that affect plays in understanding defensiveness and why all human beings are fundamentally motivated to defend. Affect is an intricate part of what is obscured and avoided when defenses are triggered. Furthermore, avoidance of particular affects can also motivate the use of defenses in individuals. Although not all defense mechanisms deal with affect in the same fashion, therapists must understand their place in the patient's psyche if they are to intervene appropriately in-session. Chessick (1974) underscored this therapeutic task by stating the therapist's responsibility to "find" the painful affect that is being defended against. Naming affects and including them in communications to patients is part and parcel of psychodynamic psychotherapy, especially in the theory of defense. This is similar to David Malan's (1979) conceptualization of psychodynamic conflict where defenses and anxieties block the expression of true feeling and are incorporated by many short-term dynamic therapies including Davanloo (2000), and McCullough and colleagues (2003).

While it is impossible to identify one particular affect that accompanies each defense mechanism, it is possible to distinguish certain defenses that typically deal with affect in the same manner. McWilliams (1994) states that when therapists encounter the defense of acting out, they should get patients to focus on the rising level of anxiety or rage that is present immediately before the employment of this defensive process. Some defenses, such as isolation of affect, have an underlying function intended to diminish the consequence an affect will have on consciousness. For instance, isolation of affect usually produces its effect through a general belief that affect and emotions are weak and should thus be avoided. Effective interpretation of this defense should take this into consideration. McWilliams (1994) also warns against interpretation at an overly cognitive level of understanding for obsessional defenses such as intellectualization, which may only further entrench reliance on the cognitive and negate the affective. For certain immature level defenses such as idealization and devaluation, it may be necessary to use both confrontation and interpretation in order to reach the typical feelings of greed and envy that are believed to be beneath these defenses (Kernberg, 1976, 1985).

In the case of passive-aggression, the idea of aggression is interwoven into the understanding of this defense. Although reaction formation does not fit into this category of defense, clinicians need to uncover the magical thinking that subsumes this defense and challenge the idea that anger is sinful. McWilliams (1994) again suggests that

therapists should interpret the belief about one's emotional world that leads to the use of this defense, specifically that anger will cause bad things to happen or drive people apart. Vaillant (1993) clarifies work with this defense further by indicating that therapists should help patient's actually vent their angry feelings and help them acknowledge that they are in fact experiencing anger.

Implications for Practice and Empirical Evidence

Across all levels of defensive functioning, clinicians should work with the affective experience that is either transformed or distorted by the defense. Sometimes, this takes the form of interpreting that which is not readily available to the patient as is the case where painful affects are present but not easily acknowledged. At other times, patients should be encouraged to express the emotional material that is being turned into its opposite (as in the case of reaction formation) or expressed in a self-destructive, passive form (as in passive-aggression). The key here is for the therapist to be attuned to what affect is being avoided by the expression of a particular defense. Each defense will have its own idiosyncratic method of dealing with affect and thus clinicians must be able to identify this process and use it to further the exploration of their patients' psyche.

McCullough and colleagues (2003) have developed Affect Phobia Therapy (APT), a form of short-term psychodynamic therapy that pays special attention to the interaction of affect and defense processes. Preliminary studies show promise, and indicate that this form of therapy can be effective for treating cluster C personality disorders (Svartberg, Stiles, & Setzler, 2004). Bhatia and colleagues (2009), in a singlecase process study examining APT, found that increased exposure to ward off emotions and decreased levels of inhibition lead to positive changes in patient functioning. This process was facilitated by the patient demonstrating insight into the types of defenses he or she was using and having the motivation to relinquish them. Overall, this single-case process study demonstrates the important connection between affect and defense processes and its importance to therapeutic outcome. This study relied on the Achievement of Therapeutic Objectives Scale (ATOS) developed by McCullough and colleagues (2003) which allows researchers to examine different therapeutic processes and the extent to which a patient is able to assimilate within the course of a session. Further process studies on larger samples using scales such as the ATOS are needed, and are being conducted (see also Schance, Stiles, McCullough, Svartberg, & Nielsen, 2011) to determine how defensive functioning modulates the patient's abilities to adaptively process and experience affect.

7. Consider the Degree of Emotional "Activation" Associated with the Defense.

The concept of "emotional activation" is based on the idea that a defensive process usually contains some form of affective material that is defended against, compartmentalized, or expressed. As such, therapists are in a position to observe this affective level when patients are defending. The defense of splitting usually contains a great deal of affect directed at an object in which a distortion of the object is readily noticeable to the observer (e.g., strong feelings of anger towards father), however this can be experienced in different ways depending on how much emotional activation is attached to the defense. The patient can be enraged and thus extremely "charged"; as a result, very little interpretation would be possible because the sheer emotionality of the situation makes it inappropriate to use interpretation. On the other hand, the patient could be using the same defense (splitting) in such a way that no such extreme activation of affect is present and thus interpretation by the therapist is possible. Lowenstein (1951) was the first theorist to elucidate this process and warned therapists against interpreting when defenses were too emotionally activated and therefore not amenable to interpretation. He also stated that interpreting when the emotional level seemed "cold" and "detached" was of little use.

This principle is consistent with the "mutative interpretation" proposed by Strachley (1934), which states that an interpretation must evoke a specific level of anxiety to be effective. When too little anxiety is inculcated by the interpretation it will be forgotten or dismissed by the patient and fall short of its intended target. On the other hand, interpretations that provoke too much charge or anxiety are overwhelming and cannot be used to generate true insight.

The defense of acting out is considered to be a maladaptive defense mechanism usually expressed as uncontrollable impulsive behaviour. This version of acting out is not to be confused with the broader conceptualization of acting out seen in the dynamic literature that has to do with "acting out" the transference outside of the therapeutic hour. Specifically with acting out, Anna Freud pointed out that (Freud, 1937/1965; Sandler & Freud, 1985) therapists should always interpret when the defense is cold or no longer emotionally active. This way the defense will not be too emotionally charged and will thus be more susceptible to interpretation. Furthermore, this will make it less likely that patients will use defenses such as denial or other disavowal defenses to guard against examining the acting out.

More recently, Nancy McWilliams (1994) suggested another approach with this defensive process that helps patients to focus on anxiety as a means of counteracting the

defense. She advises therapists to encourage their patients to focus on the raising level of anxiety before the act so as to limit the probability that anxiety will lead to uncontrollable impulsive discharge.

Implications for Practice and Empirical Evidence

The implication of this principle is that psychotherapists undoubtedly need to pay special attention to the level of emotional activation during sessions as a gauge for intervening with defenses. This of course will vary from patient to patient and from defense to defense. Clinical acumen plays an important role regarding optimum levels of activation required for effective interpretation of defense mechanisms.

There is however limited empirical support for this principle. Previous research by Salerno and colleagues (1992) explored the relationship between therapist intervention, patient defensive functioning, and affect. Their findings support the link between these concepts by showing that confrontation elicited more patient defenses than did clarification. Salerno et al. (1992) also found that patient affect and patient defenses are associated with one another regardless of the intervention used by therapists. In recent years, research has begun to show the link between certain forms of psychopathology and affect regulation, or the ability of individuals to regulate their own emotional states (Bateman & Fonagy, 2004).

8. Avoid using Technical Language in Interpretations.

There is little debate in the literature regarding this principle as authors agree that therapists should refrain from using overly technical language in their verbalizations to patients regarding defense mechanisms. Not surprisingly, no sources were found that endorsed the use of lengthy or technical terms in interpretations. Glover (1955) was the earliest source found to explicitly state that "official objection to the use of technical terms was nearly unanimous" (p. 291) in the psychoanalytic community. The author argues that technical terms have "no meaning" for patients and are ultimately useless in psychotherapy.

Langs (1973) went one step further and hypothesised that the use of overly technical language by therapists may in fact promote the use of intellectualization and isolation defenses by patients. These defense mechanisms share the function of distancing patients from the experience of affect. As a result, therapists who use overly verbose and technical sounding interpretations may in fact be promoting the use of defenses that are counterproductive in psychotherapy.

Wolberg (1977) distinguishes between "authoritative" and "tentative" interpretations. Tentative interpretations are presented as "hunches" or "best guesses" by the therapist so that the method of presenting unconscious material is used without provoking too much anxiety. However, in certain cases when this approach is not providing the desired effect in the therapy, the authors claims that a more authoritative language may be used to overcome forces of repression (Wolberg, 1977).

Implications for Practice and Empirical Evidence

The clinical implication of this principle is to avoid jargon-filled interpretations and stay as close to the patient's words as possible. Also, it would be important for the therapist to use language that is not authoritarian in nature but rather that is collaborative and inclusive with the patient. However, one author (Wolberg, 1977) acknowledges the potential usefulness of more authoritative interpretations. Although each therapist will have his or her own unique style and choice of words, the key point of this principle is that a therapist can include the patient in the interpretation and not present interpretations as absolute fact. Using the same or similar words spoken by patients in-session is one way that therapists can stay as close as possible to the patient's experience of reality.

To the best of our knowledge, no study has empirically examined the length of defense interpretations made by therapists and whether there is an optimal length of interpretive material a patient can handle at any given time. Given the convergence of clinical wisdom surrounding the use of appropriate and non-technical language with patients it would be important to empirically determine what impact, if any, adherence or non-adherence to this principle would have on the psychotherapeutic relationship and psychotherapeutic outcome.

9. Balance between Supportive and Interpretive Interventions

While usually not considered to be as important or curative as the interpretation, supportive techniques also make up a large part of what dynamically oriented therapists do in-session. They differ from interpretations in that supportive interventions do not confront or make mention of unconscious material; instead they aim to support patients' behaviours and generate practical solutions to problems. McWilliams (1994) proposes that when using supportive techniques therapists should identify feelings and life stressors as opposed to interpreting defenses. McWilliams (1994) indicates that this is especially true for patients who are more disturbed. This may, for example, require the therapist to be tolerant while listening to the patient's frustrations without interjecting to point out defenses that arise during the process. Additionally, supportive techniques such as these sometimes require the therapist to 'collude' with the patient's distortions and resistances; however, it does not mean that the therapist agrees with the patient's

understanding of events but also does not mitigate or devalue their experience. Haven (1986) explains how, with the defense of projection, therapists should support the distress associated with the defense but not the projected content. Vaillant (1993) goes one step further and suggests that the therapist can mitigate the difficulty caused by the use of certain maladaptive defenses (e.g., acting out) by gently nudging patients toward mid-level defenses (e.g., displacement). These suggestions are not interpretive in that they are not geared toward awareness and insight but rather make use of suggestion and therapist approval.

Implications for Practice and Empirical Evidence

One useful clinical suggestion to emerge from the debate on support versus exploratory interventions is that clinicians should use both support strategies in addition to interpretive interventions as a means of achieving a strong alliance and favourable outcome. Although there is no definitive method for determining what this technical mixture should be currently, the defensive profile of patients based on the immaturemature continuum as well as the disorder they suffer from, appears to be a promising avenue of study empirically as well as clinically.

The idea of combining supportive and interpretive interventions has been studied empirically by Despland and colleagues (2001). They proposed that "at each level of a patient's defensive functioning there appears to be some specific range of more exploratory (interpretative) interventions that will be optimal to facilitate growth of the alliance" (p. 162). Although they stated that support alone was not enough in psychotherapy to form a strong alliance, the correct mixture of support and interpretation by therapists was considered necessary for an optimal therapeutic alliance. Despite the fact that Despland and colleagues (2001) were interested mostly in the alliance, due to the strong link between alliance and outcome in psychotherapy research (Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000), it is clear these findings also have implications for outcome variables as well. In that study, 12 patients seen in ultra-brief (four sessions) were assessed for alliance and defenses. Therapist interventions were also examined and then calculated on a continuum from supportive to expressive interventions named the Expressive-Supportive Intervention Level (ESIL), with expressive techniques, which are any number of techniques that are interpretative in nature versus non-interpretative or supportive techniques. The research group used this notion to calculate a ratio between the average technique level (supportive versus expressive) and defensive maturity level. The results indicated that adjustment scores at session one predicted alliance scores at sessions three and four. This result was independent of initial defense scores. Those patients who started off with lower defense scores were still able to form strong alliances when therapists were well adjusted.

Siefert, Hilsenroth, Weinberger, Blagys and Ackerman (2006) echoed the sentiment of the Lausanne group years later when they also concluded that therapists did in fact adjust their supportive and interpretative techniques to patients' defenses early on in Short-term Psychodynamic Psychotherapy (STPP). Siefert and colleagues (2006) found that overall defensive functioning predicted the use of both cognitive behavioural and psychodynamic interventions (supportive, expressive, etc.) indicating that therapists are using patients' defenses as a guiding principle in these forms of psychotherapy even if implicitly. However, they were not able to reproduce the results of Despland and colleagues (2001) with respect to defensive functioning and therapeutic alliance. Furthermore, Hersoug and colleagues (2002) confirmed this latter finding when they found that initial defensive functioning did not predict either alliance or outcome on its own.

In another study, Hersoug, Hoglend, and Bogwald (2004) questioned the earlier notion by Despland and colleagues (2001), which assumed that therapist supportive and expressive interventions could be placed on a continuum and then compared to the defensive hierarchy. They concluded that what was assumed to be a "poor" adjustment ratio, that is therapist interventions and patient defenses not congruent, was actually correlated with a stronger alliance score in some cases. They also found that when support strategies were given to patients with more adaptive defense scores, alliance tended to improve. This is counterintuitive when we consider that support strategies match with the lower end of the defense continuum to form a more "well adjusted" dyad. Hersoug and colleagues (2004) explain this finding by suggesting that because Despland and colleagues (2001) studied an ultra-brief form of therapy, it was not necessarily comparable to their naturalistic design, which examined Sessions 7 and 16 out of a treatment that included a total of 40 sessions.

In a follow-up study Hersoug and colleagues (2005) found that interpretations but not support strategies were associated with a decrease in maladaptive defenses over the course of therapy. This relationship was not replicated with respect to adaptive or midlevel defenses. Although adaptive defenses did increase in the sample, neither the use of support nor the use of interpretive techniques explained the change. In a study of ultrabrief psychodynamic psychotherapy using sequential analysis, it was determined that therapists typically use supportive interventions to "prepare" patients before making

defense interpretations (Drapeau et al., 2008). That study also found that there are predictable ways in which psychodynamic therapists structure and use therapeutic interventions.

As a result, it appears that the relationship between defensive functioning at the beginning of therapy and alliance and outcome is dependent on a therapist's ability to understand and use defenses as part of treatment planning. For example, all of the above mentioned studies did not find a direct relationship between Overall Defensive Functioning (ODF), or the average maturity level of the patient's defenses, and the therapeutic alliance. Only the Despland and colleagues (2001) study found an effect when the concept of adjustment was added. Therefore, it seems that the relationship between defense, alliance, and therapeutic technique is determined at least in part by the therapist's ability to tailor the treatment to patients' characteristics but the role played by supportive interventions is still open for discussion. These studies raise questions regarding how therapists structure their use of techniques in psychotherapy.

10. Accurately Identify Defense Mechanisms used by Patients.

The final of the ten principles assumes that an important aspect of a therapist's therapeutic competence has to do with correctly addressing the type of defense employed by patients or, more specifically, when the therapist believes that he is addressing a patient's use of the defense of intellectualization, is the person actually using that defense mechanism? Glover (1955), Greenson (1967), and Langs (1973) sustain that the therapist must accurately address the "process" by which the patient is defending. The word process in this case refers to the psychological process by which the mind makes use of one mechanisms of defense (e.g., denial) over another (e.g., repression). Langs (1973)

suggests that inaccurate interpretations, which address the incorrect process, could conceivably damage the alliance or adversely affect outcome.

Brenner's (1981) thinking was somewhat different from the others in that he conceptualizes defense as any cognitive process that can be enlisted by the mind to serve a protective function. While Brenner (1981) does not specifically argue against accuracy in defense interpretation per se, his writing suggests that it would be somewhat misguided to dedicate time and energy to accurately identifying specific processes if any of a multitude of cognitive processes could interchangeably serve this function.

Accuracy was largely ignored in the empirical literature until recently when more emphasis was placed on studying the effect of accurate versus inaccurate interpretations (Junod, de Roten, Martinez, Drapeau, & Despland, 2005). An accurate interpretation is defined as one that correctly recognizes the type and function of the defense used by patients in session, whereas an inaccurate interpretation fails in one or both of these aims. *Implications for Practice and Empirical Evidence*

The accurate identification of defenses used by patients in psychotherapy is an implicit assumption inherent in all training programs that teach psychodynamic psychotherapy and it speaks to the universal characteristic in any good therapy: if the patient's experience is being accurately identified by the therapist it should in theory be positively related to the therapeutic alliance and to therapeutic outcome (Perry, Petraglia, Olson, Presniak, & Metzger 2012).

Junod and colleagues (2005) examined this concept empirically within the context of strong and weak alliance dyads. Their results indicated that poor accuracy scores were more typical of the weak alliance pairs and higher accuracy was associated with a

stronger alliance. However, they also found that over adjustment (interpreting more mature level defenses on average) was associated with the strong alliance group as well. Thus, it is difficult to tell whether it was actually the accurate identification of defenses by therapists or some other aspect of defense interpretations that accounted for the difference between these two groups. Moreover, this study only examined the average defense used by patients and the average level of interpretation made by therapists, thereby overlooking the moment-to-moment interaction of the therapeutic process that would be of vital importance in an investigation of this type.

Petraglia, Perry, Janzen, and Olson (2009) carried out another investigation in order to account for the interactive nature of interpretation accuracy. They found that higher adjustment scores, which involved either interpreting the defense that came immediately before the interpretation or a higher-level defense, were associated with a significant increase in the maturity of the defenses used by the patient immediately following the interpretation. Although these results seem promising, they should be interpreted with caution because this investigation had a very small sample size (*n*=6) and was exploratory in nature. Still, we can safely assume that some evidence supports the notion that accuracy of interpretation is an important aspect of dealing with patient defenses. Perry et al. (2012) also addressed the issue of accuracy in interpretation by examining three case studies in which the therapy was delineated along whether or not therapists could accurately identify the defensive process at work in the therapeutic treatment. The authors highlight the role therapists play in correctly recognizing important defense mechanisms as they change with successful treatment.

Conclusion

This study attempted to synthesize the available theoretical and empirical literature with respect to technical suggestions for interpreting defense mechanisms in psychotherapy into ten overarching principles. Additionally, from this synthesis of theory and research, an outline of clinical implications was described to help guide clinicians' thinking when interpreting a patient's defenses in-session. This list of principles is by no means exhaustive, nor are the clinical implications expected to serve as the "gold standard" for practice. Rather the goal of this study was to pragmatically integrate both classic psychoanalytic texts on technique and modern empirical studies into a guiding framework that can be used by theorists, researchers, and clinicians to spawn future investigations and advancements.

This study had several limitations that are worth mentioning. First, although every effort was made to avoid missing important sources, it is possible that certain authors were overlooked either by omission or error. Second, due to the sheer volume of sources examined in the study it is also conceivable that certain sources were mistakenly discarded during data retrieval and analysis (see Figure 1). Finally, there is the possibility that other readers would have examined the sources used in a different manner thereby changing either the level of agreement found for the principles or extracting new or different principles altogether,

One potential future purpose of these principles is to use them as a means of steering psychotherapy training programs for evidence-based psychodynamic psychotherapy. Programs could possibly use these principles to measure levels of adherence to evidence-based principles for therapists learning to make interpretations of

defense mechanisms. In this manner, psychodynamic psychotherapy training programs could integrate the teaching of theoretical material with principles that show empirical validity as well.

It is important to note that six of the ten principles (Principles 1, 2, 3, 4, 5, 8) discussed in this paper have never been researched to date. Thus, much work remains to be done in the field. The remaining four principles (Principles 6, 7, 9, 10) have been investigated and have guided clinical work already. The novelty of this paper is the suggestion that these different areas of research be integrated to form part of a whole, which could then be used in a cohesive and unified way.

Moving forward, what is desperately needed in psychodynamic psychotherapy is a more thorough empirical evaluation of the rich clinical tradition that this approach rests upon. The next step in the process of refining defense technique would be to investigate these principles more thoroughly by means of empirical analysis and translating this into useable guidelines that are both empirically robust and clinically relevant.

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Defense Principle	Summary of Notes as Derived from Sources Associated with Principle	Reference
1. Considering the "Depth" of an Interpretation.	 Recognize the defense used by the patient Undo what has been done by the defense (e.g., "to find out and restore what has been repressed, rectify the displacement, to bring back what has been isolated into its true context") Analyst should then returns his analysis from ego back to the id, meaning examining impulses, drives, wishes, etc. 	Freud, 1937/1965, p. 15
	4) Interpret at the level of the Ego.	Sandler & Freud, 1980, p. 4
	5) Interpret defenses before impulses and conflicts.6) Interpret from surface to depth.	Fenichel, 1945, p. 25
	7) Analyze resistance before content Ego before Id.8) Begin with the "surface".	Robertson, Banon, Csank, Frank, & Perry, 2002, p. 74
	9) Confront:show patient that he is resisting	Greenson, 1967, p. 118.

 Table 1. Defense Principles Table

	• show patient why he is resisting	
	• show patient what he is resisting	
	• show patient how he is resisting	
	10) Interpret	
	• motive for resistance	
-	• mode of resistance (i.e., the defense mechanism)	
	11) Address inconsequential areas first and avoid the underlying wish and the anxiety it produces.	Reid, 1980, pp. 85-95
	12) Examine why the defense was used, how it was used, the context in which it appears, and the conflict associated with it.	Langs, 1973, p. 482
	13) Interpret affects first followed by wishes since wishes are "deeper".	Langs, 1973, pp. 424-426
	14) Do not fail to identify the latent or unconscious meaning of the defense.	Langs, 1973, pp. 507-508
	15) Confront defenses in order to call the patient's attention to what is happening earlier in therapy rather than later. Leave out motive or impulse until later when interpretation is used.	
	16) Do not include information that is too deep or contains Id content too early in the therapy.	

	17) <i>Focus of attention; surface and context</i> : stick to observable "data" within the analytic hour (the verbal expressions of the patient), focus on the immediacy of the material. E.g. even though a patient talks about the past or future pay attention to the way it is described in the present (through undoing for example). No need to elaborate on what the patient says (i.e. the conflict associated with the defense).	Gray, 1994, pp. 175-184.
	18) <i>Demonstrating the defensive manifestation to the patient:</i> Task of the analyst in this stage is to show the "observed data" to the patient with the task of making the patient aware of how his or her ego handles intrapsychic conflict.	Gray, 1994, p. 178
	19) Invite the patient to suspend the defense and examine the defense "rationally" for a moment and observe along with the therapist. "The analyst's task is to clearly include the essential package of defense and what it interfered with, without overloading the patient's ego"	
	20) Address defenses as oppose to what is being defended against.	McWilliams, 1994, p. 304
Specific to Projection	21) Do not interpret from "surface to depth" because that could reinforce the idea that there is something "behind" people's behavior and keep the projection in place.	McWilliams, 1994, p. 218

	 22) Use supportive interventions: acknowledgement, questions, associations, reflections, clarifications, Support Strategies (these are to be used in early and middle phase of therapy and should lead to more emotional elaboration). 23) Use exploratory interventions: Interpret and help patient develop insight: Progressively more deepening Defense interpretations used that combine affect, the defensive operation, motive, objects affected, and how the defense was learned in formative relationships. 	Perry & Bond, 2005, pp. 531-538
• Specific to Immature defenses seen in PD patients	 24) Do not use interpretation: may works for neurotic patients but not personality disorders (alienates the patient and usually comes across as hard, judgemental, etc.) "Rather the therapist should inquire about, and help patients to think through, the consequences of their actual or intended actions." 25) "Too rich a mixture of interpretative techniques early on may correlate with poorer outcome especially with more disturbed patients" 	Vaillant, 1993, p. 70 Perry, 2001, p. 659.

	26) Mix between support and interpretation must be adapted to patient defenses. Also support alone is not enough for the alliance."At each level of a patients' defensive functioning there appears to be some specific range of more exploratory (interpretative) interventions that will be optimal to facilitate growth of the alliance"	Despland, de Roten, Despars, Stigler, & Perry, 2001, p. 162.
	27) "Adjust" supportive and interpretative techniques to patients' defensive functioning.	Siefert, Hilsenroth et. al., 2006, p. 28
2. Intervene with Patients' most Prominent Defenses.	1) Confront more prominent defenses whenever they are obvious especially when they are defending important repressed material.	Langs, 1973, pp. 424-426
	2) Address both characterlogical defenses as well as those that are "out of character" because they may be related to a symptom.	Greenson, 1967, p.97
3. Interpretations should begin with Defenses used as Resistance.	1) Address defense used as resistances first during the session.	Reid, 1980, pp. 85-95
		Wolberg, 1977, p. 592
		Gill & Hoffman, 1982
		Langs, 1973, p. 426

		Chessick, 1974, p. 194
4. Attend to Defenses used both Inside and Outside of the Therapeutic Hour.	 1) Confront defenses (used both in and out of therapy) before moving on towards an "in-depth analysis" of the unconscious meanings of these defenses so that structural change is achieved. 	Langs, 1973, pp. 424-426
	2) Point out reality based problems first.3) Point out the cost of the defensive action to the patient and others.	Langs, 1973, p. 433
	 4) Use defense interpretations only within the context of the transference relationship with the therapist and not in relationships outside of therapy. 5) Interpret defenses <i>as they are used</i> in psychotherapy and not outside of the analytic hour. 	Gray, 1973, pp. 474-494 Gray, 1982 Gray 1990 Gray, 1994 pp. 175-184 Gray, 1996
	6) Interpret current sources of stress (outside the therapy).7) Interpret the interaction of personality needs and defenses.	Wolfberg, 1977, p. 592

	8) Acknowledge when reality based problems interfere with the mode of resistance (defense)	Greenson, 1967, pp. 118-122
	9) "Pursue this and similar mode of activities in and outside of the analysis."	Lemma, 2003, p. 193
• For immature defenses only	10) Assist patient is addressing their internal world once external stressors are manageable then we11) Confront the defenses with the permission of the patient.	Vaillant, 1993
5. Consider the Timing of Interventions.	1) Interpret defenses in the "middle phase" of therapy.	Reid, 1980 pp. 85-95.
	2) Defense interpretation observed in mid-phase of treatment.	Hersoug & al., 2003
	3) Defenses tend to change in the last half of therapy	Hersoug & al., 2002

DEFENSE MECHANISMS IN PSYCHOTHERAPY

4) Focus on defenses in the mid phase of treatment but should also be addressed throughout therapy.	Glover, 1955
5) Do not interpret prematurely since the intervention will have little use but will not be harmful.	Reid, 1980, p. 86
6) Interpretation should be done at the beginning of the session rather than later because there will be more time to work through.	Reid, 1980, p. 90
7) Interpret when the patient is about to gain insight on his own	
8) Do not interpret prematurely or it will damage the alliance.	Langs, 1973, p. 440
"Therapist does not wait for defenses to be expressed as resistances in transference reactions or toward the therapy to interpret them"	Langs, 1973, p. 483
9) Do not underuse interpretations	Langs, 1973, p. 507
10)"Sustained intervention by the therapist" addressing defenses is necessary throughout therapy	Winston, Winston, Samstag, & Muran, 1993

6. Consider the Affect Associated with the Defense when Appropriate.		
Acting Out	1) Assist patient in focusing on anxiety to counteract the defense. That is, get the patient to focus on the raising level of anxiety before the act so as to limit the probability that anxiety will lead to uncontrollable impulse.	McWilliams, 1994, p. 155
• Isolation	2) Address the idea that emotions are associated with being childish or weak.	McWilliams, 1994, p. 283
• Intellectualization, Compartmentalization	3) Interpretations that address the cognitive level of understanding, before affective responses have been disinhibited, will be counterproductive. Be careful for the difference between intellectual and emotional insight.	McWilliams, 1994, p. 296
Reaction Formation	4) Address the idea that emotions such as anger are sinful and should not be expressed. The obsessive tries to obscure magical thinking with this defense.	McWilliams, 1994, p. 297
Idealization & Devaluation of Other/Self	5) Confront these defenses and interpret affects of envy and greed that are associated with them.	McWilliams, 1994, p. 181 Kernberg 1975, 1976, 1984

Passive-Aggression	 6) Interpret underlying belief that anger drives people apart or causes "bad" things to happen. 7) Assist patient in venting angry feelings 8) Help patients acknowledge that they are in fact angry. 	McWilliams, 1994, p. 244 Vaillant, 1993, p. 79
7. Consider the Degree of Emotional "Activation" Associated with the Defense.	 9) "We attempt to find out what the painful affect is making the patient resistant" 1) Interpret when the defense is neither too emotional nor emotional cold or detached. 	Chessick, 1974, p. 198 Lowenstein, 1951, pp.1-14.
	2) Use interpretation that produce enough activiation. Interpretations that do not produce enough activation it will be effectual, if on the other hand the interpretations that produce too much activation will result in "an explosion of anxiety".	Etchegoyen, 2005, pp. 448-449
Acting Out	3) Goal is to control the discharge of anxiety; too much anxiety is overwhelming and unproductive, too little does not lead to meaningful insight."It will be necessary to interpret the ego defence"	Sandler & Freud, 1980, p. 53

	4) Interpret when the defense is cold or no longer emotionally active. This way the defense will not be too emotionally charged and will thus be more amenable to interpretation. The patient will be less likely to use denial or other disavowal defenses to keep the acting out in place.	McWilliams, 1994, p. 155
	5) Assist patient in focusing on anxiety to counteract the defense. That is, get the patient to focus on the raising level of anxiety before the act so as to limit the probability that anxiety will lead to uncontrollable impulse.6) Confront acting out as it is an important part of intervening	Langs, 1973, p. 436
8 Avoid using Technical Language in Interpretations.	 with this defense. 1) Do not use technical language in interpretations or it will promote isolation and intellectualization. 	Langs, 1973, pp. 484- 485.
	2) Scan the associations of the patient to build the interpretations.	Wolberg, 1977, p. 589
	3) Making tentative interpretations; official objection to the use of technical terms was nearly unanimous.	Glover, 1955, p. 291
9. Balance between Supportive and Interpretive Interventions	1) Therapists' use of supportive interventions did not impact the development of either maladaptive or adaptive defenses.	Hersoug et al., 2005

• Splitting	2) Have patient envision the positive and negative aspects of an object at the same time by using unconditional positive regard, firmness and safety.	Vaillant, 1993, pp. 71-73
	3) Acknowledge that the complaint is "as severe" as you have ever seen, turn up the volume of the complaint with statements like "I don't know how you can stand it".	
• Acting Out	4) Do not forbid the acting out but help the patient to use displacement instead (e.g. hit a bunching bag).	
• Pass-Aggression. Turning against the self	5) Help patient to vent angry feelings and also get them to assert themselves outward and not inward. Help patients acknowledge that they are in fact angry. If patient describes cutting himself or herself then therapist should understand it "matter-of-factly". Say "I wonder if there is some other way you could make yourself feel better, Can you put your feelings into words?" Point out the probable result of the passive aggressive behavior as it manifests itself. "What do you want for yourself?"	Vaillant, 1993, pp. 77-79
• Projection	6) Validate the distress but not the projective content and be empathetic.	Vaillant, 1993, p. 75
	7) Use Counter projective techniques.	Haven, 1986; Quinodoz 1994

10. Accurately Identify Defense Mechanisms used by Patients.	1) Therapists should master the "technique" of addressing what defense or defensive level the patient is using.	Junrod, de Roten, Martinez, Drapeau, & Despland, 2005, p. 428.
	2) Accurately address the defense used by the patient or the alliance and outcome may suffer.	Langs, 1973
		Glover, 1955 Chapters 4-5.
	3) Point out how (process) the patient is defending.	Greenson, 1967
	4) Be aware that any cognitive process can be used by the mind for defense, idea of individual mechanisms not important.	Brenner, 1981, pp. 557-569.

Figure 1. Flow Chart: Data Retrieval and Analysis



Transition to Chapter 3

In the previous chapter, the investigation of therapeutic principles from literature was conducted and principles were derived. The following two empirical studies (Manuscripts 2 & 3) comprise Chapters 3 and 4 of the thesis, which seek to further the work that began with the creation of the ten principles (Table 1) in Manuscript 1. Specifically, both studies will focus on Principle 1 (Depth) from Manuscript 1 as it was consistently identified as an integral part of therapeutic technique and defensive behavior of patients from the literature. Despite this, no study to date has examined the concept of defense interpretation depth empirically.

As discussed in the literature review of this thesis, research studies often reduce the study of therapeutic interpretations to a question of dosage or frequency. While this is an important and valid empirical endeavour, it also limits fundamental aspects of the therapeutic process. Consequently, other essential characteristics of interpretations are ignored empirically and practising psychotherapists are hard-pressed to locate research findings relevant to the therapeutic process. The rich theoretical tradition in psychoanalysis and psychodynamic psychotherapy is fertile ground for understanding the concept of interpretation but lacks the empirical rigor necessary for the scientific method. The creation of principles was simply an attempt to set the platform from which empirical investigation could be informed. Thus, empirical examination of theoretical principles is one way to bridge the gap that exists between research and practice in psychotherapy by creating more direct and pragmatic links between both the theoretical tradition and the empirical one.

Manuscript 2, which follows, is not assumed to be the definitive answer on whether or not defense interpretation depth is a valid avenue of enquiry but more accurately an attempt to illuminate whether this variable shows some promise as a means of investigating therapeutic process. Along this line of reasoning, the therapeutic alliance was incorporated into the investigation at this point for its strong empirical link to therapeutic process and outcome (Hatcher, 2010; Horvath & Symonds, 1991). With respect to the rapeutic process studies, Hatcher (2010) underlined how early on in psychotherapy research the alliance "emerged as a way to think about important issues in clinical work" (p. 7). In the case of the following two studies of this thesis, the alliance provides the therapeutic backdrop from which the concept of defense interpretation is examined. The reason for this is twofold; first it was clear in conducting Manuscript 1 that much of the clinical suggestions and guidelines implicitly contained relational aspects to them. In Principle 1 (Interpretation depth) for example, it is essential to determine whether the patient is ready to "absorb" an interpretation and thus implies that the therapist pay close attention to the state of the therapeutic relationship in that session. Second, in presenting the preliminary results of Manuscript 1 at the conference of the European Chapter for the Society for Psychotherapy Research (Petraglia & Drapeau, 2009), it was pointed out by several researchers in the audience that the therapeutic alliance would be an important variable to incorporate into the empirical studies as it would invariably affect the delivery of interpretations made by therapists.

CHAPTER 3- INVESTIGATION OF PRINCIPLE 1- DEFENSE

INTERPRETATION DEPTH

Running Head: EMPIRICAL EXAMINATION OF DEFENSE INTERPRETATION

An Empirical Investigation of Defense Interpretation Depth, Defensive Functioning, and Alliance Strength in Psychodynamic Psychotherapy

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Abstract

The present study examined the relationship between depth of defense interpretations by therapists, patient defensive functioning, and the therapeutic alliance in a sample of 36 patients who underwent short-term dynamic psychotherapy. Therapist interpretations were rated using the Psychodynamic Interventions Rating Scale (PIRS: Cooper, Bond, Audet, Boss, & Csank, 2002) while defensive functioning was rated using the Defense Mechanism Rating Scales (DMRS: Perry, 1990). Mean depth of interpretation was compared between sessions that were identified as either *high-alliance* or *low-alliance* sessions using the Helping Alliance Questionnaire (HAq-II: Luborsky et al., 1996). Results indicate that defensive functioning was correlated to defense interpretation depth in low-alliance sessions pointing to the possible "destabilizing" effects that these interpretations may have on both defensive functioning and the therapeutic alliance. These results are discussed within the context of previous studies of therapeutic technique in dynamic psychotherapy.

Keywords: defense mechanisms, interpretation, therapist technique, psychodynamic therapy

An Empirical Investigation of Defense Interpretation Depth, Defensive Functioning, and Alliance Strength in Psychodynamic Psychotherapy

Defense mechanisms are any of various usually unconscious mental processes that protect the self from shame, anxiety, conflict, loss of self-esteem, or other unacceptable feelings or thoughts. Not all defense mechanisms perform this task in the same manner. Certain defenses (e.g., self-assertion) are more adaptive than others (e.g., projection) by virtue of their ability to resolve conflict whereas maladaptive or immature defense may simply exacerbate the issue (Vaillant, 1993). The level of adaptability or defensive functioning of patients is related to psychopathology (Bond, 2004; Bond & Perry, 2004; Bloch, Shear, Markowitz, Leon, & Perry, 1993; Busch, Shear, Cooper, Shapiro, & Leon, 1995; Lingiardi et al., 1999; Perry & Cooper 1989; Spinhooven & Kooiman, 1997; Zanarini, Weingeroff, & Frankenburg, 2009). Moreover, research studies have shown how defensive functioning changes toward a more adaptive level of functioning through psychotherapy (Perry & Bond, 2012; Roy, Perry, Luborsky, & Banon, 2009).

Therapists in psychodynamic psychotherapy emphasize the identification and interpretation of defense mechanisms (Summers & Barber, 2010; Weiner & Bornstein, 2009). It is assumed that interpretive techniques aid patients to develop insight about the defensive process and therefore change them. Interpretations are considered the "fundamental technical instrument" (Etchegoyan, 2005; p. 9) used in psychodynamic psychotherapy and have, as a result, received the most attention in the literature. Despite consensus regarding the importance of interpretations, studies examining the use of this therapeutic technique with defense mechanisms in psychotherapy are lacking. This may

be due in part to the fact that measures for rating therapeutic technique in psychodynamic psychotherapy only began to appear in the 1980's with instruments like the Psychodynamic Interventions Rating Scale (PIRS: Cooper, Bond, Audet, Boss, & Csank, 2002). A second possible cause for this lack of attention to defense interpretations in the literature was the attention paid to nonspecific factors of psychotherapy process like the therapeutic alliance.

In recent years, several studies specifically examining defense interpretations have emerged (Despland, de Roten, Despars, Stigler, & Perry 2001; Foreman & Marmar, 1985; Hersoug, Hoglend, & Bogwald 2004; Junod et al., 2005; Winston, Winston, Samstag, & Muran, 1993). While the field is still in the initial phases of development, researchers brought to light the importance of this avenue of enquiry. More specifically, studies of defense interpretation can roughly be divided into two groups: those studies that examined the technique's relationship to changes in defensive functioning and those studies that examined the technique's relationship to important process variables such as the therapeutic alliance.

The first to examine these processes were Foreman and Marmar (1985), who found that when therapists interpreted patients' defensive feelings toward the therapist, the alliance tended to improve. Although the study consisted of a sample of only six patients, the authors argued that linking the problematic aspects of the relationship with the therapist to patient defenses in psychotherapy may help improve outcome. Similarly, Despland et al. (2001) went one step further by developing a system of adjustment where therapist interventions (including interpretations) were matched by ratio to patient defensive functioning so that at every level of patient defensive functioning there was an assumed appropriate level of therapist intervention. Despland et al. (2001) used this ratio to discriminate between low alliance groups, high alliance groups, and therapist-patient dyads with an improving alliance, showing how adjustment predicted membership in one of those three groups. This system of adjustment was however met with criticism by Hersoug et al. (2004) who found that what appeared to be an "appropriate" adjustment ratio in some cases was actually associated with either poorer outcome or the wrong assumed alliance group.

Concurrent with this, Junod and colleagues (2005) found that therapist accuracy of defense interpretation was associated with alliance strength. An accurate interpretation was defined as the therapist's ability to highlight those defensive levels most commonly used by the patient during the session. Junod et al. (2005) determined that higher accuracy of defense interpretation was associated with a stronger therapeutic alliance. Investigating accuracy of defense interpretation highlights the notion that not all interpretations are delivered in the same manner and that characteristics of the interpretations themselves should perhaps be examined as well.

Despite these efforts, much remains to be accomplished, as a number of different aspects of defense interpretations have not yet been investigated. For example, in a review of the literature aiming to identify techniques that are recommended in delivering psychodynamic psychotherapy, Petraglia, Bhatia, and Drapeau (2013) identified a set of ten technical principles, one of which being the need for therapists to consider the "depth" of a defense interpretation, also known as the "surface to depth" rule. Fenichel (1941) suggests that analysts should proceed in their work from "surface to depth", that is that therapists should not address material that is too far out of the patient's awareness before he or she is ready to deal with such material. In his review of therapeutic technique in psychodynamic psychotherapy, Etchegoyan (2005) mentions depth of interpretation as an important feature of interpretive techniques. Interpretive depth is understood as the degree to which an interpretation includes elements deeper in the unconscious. Greenson (1967) also suggests that when therapists point out the process or method of defense (i.e., how the person is defending) it needs to be closer to the surface of consciousness than the motives for which the defense was employed in the first place as well as the historical original of when the defensive process developed. More recently, Bhatia, Petraglia, de Roten, and Drapeau (2013) conducted a survey of the ten principles put forth by Petraglia et al. (2013) and found that nearly 60% of currently practising psychodynamic therapists rated the "surface to depth" rule as a critical technical principle in dynamic therapy.

Although this principle (*consideration of the "depth" of a defense interpretation*) is readily identifiable in the theoretical literature, and still widely quoted today in textbooks that describe how to conduct psychodynamic psychotherapy (e.g., Lemma, 2003), a major gap remains in the literature: no study to date has examined depth of defense interpretations empirically. This study attempts to partially address this research gap by examining a number of key variables in dynamic therapy. More specifically, this study aimed to explore the relationship between depth of therapist defense interpretations, patient defensive functioning, and the alliance. The alliance was selected as a key variable because it has been shown to be one of the most robust predictors of outcome (Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000). Specifically, sessions identified as *low-alliance* and *high-alliance* were selected as the basis for comparison of

defenses and defense interpretations. In addition, because defense interpretations are by definition designed to address patient defenses, session defensive functioning was also examined.

Method

Participants

The sample was collected as part of a larger study of process in psychodynamic psychotherapy at the University of Lausanne, Switzerland (UNIL-EPFL). The present subsample consists of 36 students between the ages of 18 and 30 years of age (M = 23.94, SD=3.93) who received one to two sessions per week of manualized (Gilliéron, 1997) Short-Term Dynamic Psychotherapy (STDP), ranging in duration from six months to one year. This treatment is and has already been in use for many years in Lausanne. All participants were outpatients requiring psychiatric or psychotherapeutic assessment at the UNIL-EPFL outpatient clinic. Each received an information document and was given a written informed consent form to fill out. All participants had to be at least 18 years old and present with an anxiety disorder, depressive disorder, or personality disorder that satisfied DSM-IV-TR criteria (APA, 2001). Exclusion criteria included: organic or delirium disorder, substantial alcohol or drug dependence, schizophrenia or other psychotic disorders, bipolar disorders, mental retardation, and antisocial personality disorder. An independent clinician made diagnoses on the basis of a formalized semistructured interview, using DSM-IV-TR criteria. The participant pool was naturally selected. As such, it closely resembles the manner in which individuals may seek out mental health services in their communities.

The sample is well suited to the present study for several reasons. First, short-term dynamic psychotherapy (STDP) lasting between 6 months and one year allows sufficient time for defense mechanisms to be expressed by patients in the therapy and therapists have ample time to identify and interpret patient defense mechanisms. In addition, the length of treatment also allowed for the alliance to go through potential variations of low-alliance and high-alliance processes, which are necessary components of the present research. Furthermore, the present STDP sample also addresses some limitations from previous studies that have investigated interpretation, defense mechanisms, and the therapeutic alliance. Most notably, several studies (Ambresin, de Roten, Drapeau, & Despland, 2007; Despland, de Roten, Despars, Stigler, & Perry, 2001; Drapeau et al., 2008) have examined ultra-brief (4 sessions) psychodynamic psychotherapy, which is not representative of the typical manner in which this form of psychotherapy is usually conducted.

Finally, in today's health care system financial considerations make treatment duration an important consideration and shorter-form therapies have become the norm in many settings (Binder, 2004). Few studies can afford to be conducted on open-ended psychodynamic psychotherapy and the use of STDP can provide researchers with important understandings of the general manner in which psychodynamic psychotherapy unfolds.

Psychotherapists

Psychotherapists for the study consisted of twelve (8 male and 4 female) experienced STDP clinicians (more than 10 years experience with the model) who saw on average three participants each. These psychotherapists also supervise trainees at the center for psychoanalytic psychotherapy (CEPP) at the UNIL-EPFL in Lausanne, Switzerland.

Instruments

The measures for the study were designed to capture three important aspects of psychotherapy: the therapeutic alliance, therapist interventions, and defense mechanisms.

Alliance. The Helping Alliance Questionnaire (HAq-II: Luborsky et al., 1996) was used to rate alliance strength for individual therapy sessions. The scale shows acceptable levels of convergent validity with other self-rated measures of alliance in use today in psychotherapy research (Luborsky, 2000). For example, the HA-q has been shown to be correlated with the Working Alliance Inventory (r = .74) and California Psychotherapy Alliance Scale (r = .74). Furthermore, the HA-q shows evidence of strong validity (see Luborsky et al., 1996).

For this study, low-alliance and high-alliance sessions were identified based on individual participants' alliance scores. For example, a low-alliance is defined as a HA-q score one and a half standard deviations below the average HA-q score for that individual participant. Similarly, a HA-q score of one and a half standard deviations above the participant's mean alliance score were used as the cut-off for the high-alliance session. This method allowed for each participant's alliance score to be the defining criteria for identifying low-alliance and high-alliance sessions. Sessions identified as either a lowalliance or high-alliance session were included in the present analysis. For the current sample consisting of 36 therapist-patient dyads, there were 45 low-alliance and 39 highalliance sessions. The discrepancy is due to the fact that some patients experienced more than one low-alliance session and high-alliance session. On average, each dyad comprised 1.25 high-alliance sessions and 1.08 low-alliance sessions.

Therapist interventions. The Psychodynamic Intervention Rating Scale (PIRS: Cooper et al., 2002) was used to categorize the in-session activities of therapists. It includes 10 types of interventions assigned along a continuum and that are divided into two broad categories: interpretive interventions (defense interpretations, transference interpretations), and supportive interventions (clarifications, reflections, associations, support strategies, questions, contractual arrangements, work-enhancing strategies, acknowledgments). Interpretive interventions (transference and defense) can be further classified into "levels" or depths of interpretation from one to five. Level 1 interpretations point out some mental process (defensive or transference) that the patient is engaging in during therapy, while deeper levels are organized around whether the therapist includes aspects such as motive and historical material in the content of the interpretation. Level 5 is the final and "deepest" interpretation that can be rated using the PIRS. In these cases the rater identifies that the interpretation includes the process used by the patient (i.e. the defense or transference pattern), motive, and the historical origins of this process from the patient's life. As such, it closely resembles Greenson's (1967) organization of interpretive techniques in psychodynamic psychotherapy.

The PIRS has shown the ability to discriminate between different tasks in a psychodynamic interview (Perry, Fowler, & Seminuk, 2005) as well as the ability to detect differences in technique use across phases of therapy, including defense interpretations (Hersoug et al., 2003). This is especially important for the present study because only one type of psychodynamic technique (defense interpretations) was

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examined. The PIRS also takes into account the depth of a specific interpretation that is an important aspect of the proposed study. Hersoug et al. (2005) found that the PIRS interpretive category showed predictive validity and was able pick up changes in maladaptive defense mechanisms in STDP.

Raters in this study were trained to classify the verbal utterances of therapists during psychotherapy sessions by means of verbatim transcripts according to the interventions described above. When a rater scored an interpretative intervention he or she was also required to note the depth level of the interpretation. Interrater reliability was conducted on 20% of the sample and disagreements were resolved by means of a consensus meeting. The mean intra-class coefficients (*ICC* 2, 1) for all PIRS categories was .77 (range = .65-.94; see also Banon et al., 2013).

Defense mechanisms. Defense mechanisms were assessed using the observerrated Defense Mechanism Rating Scales (DMRS: Perry, 1990), which uses trained raters to rate 30 defenses based on a seven-level hierarchy (see Table 1 below). Each defense level consists of anywhere from three to eight individual defense mechanisms. In addition, an Overall Defensive Functioning score (ODF) can be computed by taking the weighted mean of each defense by level, which reflects the average maturity level (1-7) of the patient for a given psychotherapy session.

Insert Table 1

The hierarchy used as the basis of the measure is based on both theoretical and empirical (Vaillant, 1993; Vaillant, Bond, & Vaillant, 1986) conceptualization of

defenses that places these mechanisms on a continuum from adaptive/ mature to maladaptive/immature. The reliability of the DMRS has been well documented in the literature (Perry & Henry, 2004; Perry & Hoglend, 1998; Perry & Kardos, 1995). In general, observer-rated measures are usually preferred to self-report measures of defensive functioning for psychotherapy process studies (for review see Davidson & MacGregor, 1998; Perry & Ianni, 1998).

Trained raters were taught to segment and rate participant verbal utterances from transcribed psychotherapy sessions according to the method delineated by the author in the DMRS manual (Perry, 1990). Scoring the DMRS is conducted in two parts. ODF, which is calculated by taking the weighted mean of each defense mechanism scored by level, is a global measure of overall defense maturity for the participant for a particular session. For example, an ODF = 4.5 would indicate that for a given session, the participant's average defense falls at the midpoint of level 4 (Narcissistic) and level 5 (Neurotic). The second score for the DMRS involves calculating the proportion of defenses that comprise each level for the participant's session. This proportion provides a more detailed picture of which defense levels are employed most often by the participant. Throughout this process, interrater reliability was calculated for approximately 20% of all transcripts; ICC (*ICC* 2, 1) for the DMRS of the current sample was published in Kramer, Despland, Michel, Drapeau, and de Roten (2010) and varied between .81 and .95 for defense levels.

Results

Preliminary analyses

A paired *t*-test was used to compare ODF in the two groups (low-alliance & highalliance). The multivariate analysis of variance (MANOVA) procedure was used for defense levels one through seven.

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Insert Table 2
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No difference in ODF was found between the two groups, t(83) = 1.05, n.s.. The multivariate model for defense levels was also not significant, F(7,76) = .78, n.s.

Interpretation depth

Mean depth of defense interpretation in low-alliance and high-alliance sessions was examined using the non-parametric Wilcoxon Matched Pairs Sign Test. This test was also used to compare the proportion of defense interpretations to total interventions between the two groups (low-alliance & high-alliance). By virtue of being more active insession, certain therapists may speak more thereby making more interpretations. Using proportional scores allows for control of this effect by comparing the ratio of interpretations made as compared to total interventions for the session made by an individual therapist.

Results of the Wilcoxon Matched Pairs Sign Test indicated a significant difference between low-alliance and high-alliance sessions for mean interpretation depth Z(83) = -2.16, p = .03. High-alliance sessions showed less interpretation depth than lowalliance sessions. When proportional scores were used, a non-significant trend was found, Z(83) = -1.92, p = .06 in the same direction. In this analysis, high-alliance sessions showed lower proportions of defense interpretations to total interventions than lowalliance sessions.

Interpretation depth and defensive functioning

Spearman's Rank Correlational analysis was used to determine whether there was an association between mean defense interpretation depth (mean depth) and defense functioning (ODF) for each alliance group. A correlation coefficient was also calculated between the total number of defense interpretations and session ODF. Finally, another correlation was run for defense interpretation and DMRS levels one through seven¹.

Tables 3 and 4 provide a breakdown of the Spearman correlations for interpretation depth and defensive functioning. Mean interpretation depth was significantly correlated to session ODF for low-alliance sessions (r = .30, p = .05) but not for high-alliance sessions (r = .07, n.s.). For defense levels, a significant correlation was found between defense level 3 (Disavowal) and mean depth of interpretation for lowalliance sessions (r = .48, p = .00)². No other significant correlations were found for defense levels and mean depth for either the low-alliance or high-alliance groups.

Insert	Table 3
Insert	Table 4

Discussion

No evidence was found to the effect that mean defensive functioning is lower in

low-alliance sessions as compared to high-alliance sessions. Additionally, there were no

¹ Bonferroni corrections were used to control for error due to multiple comparisons by dividing the usual p value (.05) by the number of comparisons or p/7, in this case. There were no differences in significance observed in the results after controlling for multiple comparisons.

² A Spearman correlation was rerun selecting only one session per participant for the low-alliance group (n=36); results remained significant for level 3 defenses (Disavowal) and mean depth (r = .478, p = .01), albeit with a less robust significance level.

significant differences between the two groups of sessions on overall defensive functioning or individual defense levels. These findings suggest that session defensive functioning may be independent of the strength of the therapeutic alliance, which is consistent with the theory that defensive functioning is a stable personality characteristic and little variation is observed when single sessions are examined (e.g., Perry, 2001). These data are also consistent with what has been found empirically, namely a failure to find any relationship between observer-rated measures of defenses and the therapeutic alliance (Hersoug et al., 2002; Siefert et al., 2006).

Results of this analysis are more complex when depth of interpretation was considered. For example, the results suggest that mean depth of defense interpretations in psychodynamic psychotherapy is associated with the quality of the therapeutic alliance for a particular session. In addition, the same therapist may interpret defense mechanisms more "deeply" in a low-alliance session as compared to a high-alliance session. Since the data are correlational, it is not possible to determine whether a therapist interpreting more deeply causes a weaker alliance or whether the difficulty in the therapeutic alliance compels therapists to make more of these types of interpretations. Despite this, it appears that a relationship exists between the way interpretations are structured in psychodynamic psychotherapy and the strength of the therapeutic alliance.

Interestingly, interpretation depth was significantly related to defensive functioning for low-alliance sessions but not for high-alliance sessions. The association suggests that therapists making deeper defense interpretations on average had patients who reported weakened alliances, whereas the *opposite* was not true for stronger alliance sessions. It may be premature to suggest that dynamically-oriented therapists should refrain from making "deeper" interpretations for fear of weakening the alliance but clearly the idea that interpretation depth should be studied in greater detail appears warranted.

Similarly, the analysis also found some evidence for a relationship between depth of interpretation and defensive levels as measured by the DMRS. In particular, Level 3 or disavowal defenses (projection, denial, rationalization) were moderately correlated (.48) with deeper interpretations made by therapists in low-alliance sessions. The same was not true of high-alliance sessions. Disavowal defenses aim to obscure some aspect of reality to the patient employing them. Although the process of selfdeception is common to all defenses, disavowal defenses are predominantly concerned with "refusal" to accept some aspect of reality. As such, the link between this class of defenses and interpretation depth can be viewed as a "mismatch" between the type of information being communicated by the therapist to the patient and the inability of the patient to "hear" or accept this information as an accurate reflection of his or her psychic experience.

There are several points worth exploring related to the use of disavowal defenses as a function of a mismatch between patient and therapist. First, the most obvious function of the disavowal defense is to refuse the content of the interpretation made by the therapist, as noted above. Denial is the most straightforward manner in which the patient can attempt this by flatly "refusing" that which is proposed by the therapist. However, denial, as opposed to repression, requires that some of the denied material make it into consciousness before it is deemed too conflict–laden to be accepted, thereby activating the need for a defense mechanism (Dorpat, 1985). It is important to note that

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denial is more than simply not agreeing with the interpretation of the therapist, which patients are obviously free to do, but rather signals a "non-acceptance" of unconsciously motivated materials presented to the patient in the form of an interpretation of the patient's behaviour. Therapists can of course be inaccurate and off the mark with their interventions.

The second possible way in which a patient can disavow the content of an interpretation is through the defense of projection. In this case, patients are unable to use the straightforward denial and must reattribute the content that is disavowed to someone or something else. When this idea is applied to the results of the present study, then the idea emerges that patients in the low-alliance session found certain aspects of the deeper interpretations resonating in consciousness but were unable to apply the content to themselves, possibly because it was too conflict-provoking and thus it was ascribed to some other external object.

The third manner in which a patient can disavow in-session is through the defense of rationalization. In this case, almost no refusal exists in the patient but rather a need to intellectually reduce the effect of the interpretation. For example, the patient reasons and "rationalizes" the interpretation into some diluted product so that it is no longer causing as much intrapsychic conflict or anxiety. In essence, these three defense mechanisms point to the fact that a deep interpretation can push patients to rid themselves of the interpretation, especially if the interpretation itself provokes some intrapsychic conflict. Clinically, patients may be using these defenses to signal that they are either not ready for such content at that particular point in therapy or that they are simply unable or unwilling to accept what the therapist is proposing in his or her interpretive intervention. As a result of the use of these disavowal defenses, the mismatch mentioned above emerges and may result in a low-alliance session. If, however, the therapist deems it necessary to "dig deeper" in such circumstances by incorporating more and more content into the interpretation (e.g., motive for the defense, link to the past), then theoretically the technical rule of surface-to-depth is broken and the therapy itself may be placed in jeopardy. Related to this, Siefert et al. (2006) found that patients with lower ODFs received more interpretations in general. While that study did not examine interpretation depth per se, it is consistent with the idea that the use of immature defenses by patients, of which disavowal defenses belong to, may trigger therapists to make deeper interpretations in order to make a bigger impact on what may appear to be, on the surface, a challenge by patients toward the intervention.

It is important to point out that methodologically, raters were rating defense mechanisms independently of those rating therapist interventions; these defenses were not rated as "reactions" to therapist interpretations. Indirect evidence for the idea that a mismatch between therapist intervention and patient defense exists is seen by the fact that the relationship between interpretation depth and disavowal defenses was not found for high-alliance sessions. In essence, therapists who make deep defense interpretations may elicit defense manoeuvres by patients aimed at blocking out the interpretation or denying its relevance.

Vaillant (1994) warns against this therapist-patient dynamic in his book on working with defense mechanisms for patients diagnosed with personality disorders. The reasoning used by Vaillant was that the potential drawbacks of interpretive interventions of any kind outweigh the benefits when working with this population. He saw the potential for patients feeling misunderstood as simply being too high. His work represents a departure from classical psychodynamic theory that holds interpretation as the only effective means toward true characterlogical change (Etchegoyan, 2005). Perry and Bond (2005) echoed an idea similar to Vaillant (1992) years later for the same population but remained adamant that deep interpretations could still be used with these patients. However, the current sample was not exclusively diagnosed with personality psychopathology raising the question of whether deep interpretations carry with them an inherent risk of making patients feel alienated regardless of the diagnosis. This effect perhaps only emerges with a troubled alliance in non-PD diagnosed patients. It appears that too many deep interpretations when the alliance is weak may create a situation in which those defenses most commonly observed in patients with personality disorders surface.

If therapists do not make the necessary clinical adjustments, the results may be a situation where patients feel misunderstood by therapists. Safran and Muran (2000) have pointed out how ruptures in the therapeutic alliance are related to premature termination as a product of feeling misunderstood by therapists. While therapeutic ruptures per se were not the focus of this investigation, the present study examined "low-alliance" sessions, which are theoretically similar to a rupture in that the therapeutic alliance is in a state of conflict. It would appear that inappropriate use of defense interpretations may be a possible pathway to help shed light on a disruptive process in the therapeutic alliance.

It is important to note the limitations of the current study. The data associating interpretation depth, defensive functioning, and low-alliance/high-alliance sessions is correlational. As such, it is not possible to highlight a causal relationship between these

variables. Secondly, the study was conducted on sample of students at the University of Lausanne and may not necessarily be representative of other settings. Thirdly, the sample size of the current study limited power to find all but the most robust findings.

Future studies could potentially expand on the current investigation by incorporating more data points over the course of therapy with every therapist-patient dyad. This way more data could be amalgamated within the complex interactional process that characterizes the psychotherapy relationship. Thus, more research is needed to separate therapist-specific variables as a means of illuminating defenses used by patients in psychodynamic psychotherapy. Ultimately, more needs to be done to understand how therapeutic interventions play a role in patient defense use as well as change in defensive structure.

Conclusion

In conclusion, the empirical investigation of defense interpretation depth appears to be a valuable avenue of study for psychodynamic psychotherapy. Although results were mixed, the ideas gathered from the clinical literature in Petraglia et al. (2013) that therapists should pay special attention to defense interpretation depth, show some support. Clearly, however a great deal more empirical evidence would be needed in order to elucidate how defense mechanisms and interpretations interact within the framework of the therapeutic alliance to better understand this delicate interplay of forces.

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Level 7 – Adaptive	Self-assertion, Self-observation, Affiliation, Altruism, Sublimation, Suppression, Anticipation, Humour
	Humour
Level 6 – Obsessional	Undoing, Isolation of Affect, Intellectualization
Level 5 – Neurotic	Reaction Formation, Displacement, Dissociation,
	Repression
Level 4 – Minor-Image Distortion	Idealization of Self/Other, Devaluation of
(Narcissistic)	Self/Other, Omnipotence
Level 3 – Disavowal	Denial, Projection, Rationalization, Autistic fantasy
Level 2 – Major-Image Distortion	Splitting of Self/Other, Projective Identification
(Borderline)	
Level 1 – Action	Acting Out, Passive-Aggression, Help-Rejecting
	Complaining (HRC)
	Level 5 – Neurotic Level 4 – Minor-Image Distortion (Narcissistic) Level 3 – Disavowal Level 2 – Major-Image Distortion (Borderline)

Table 1. The Hierarchy of Defenses

ODF	Low-alliance (<i>n</i> =45)	M 4.24	SD .68		
	High-alliance (<i>n</i> =39)	4.39	.64		
Level 7 – Adaptive					
	Low-alliance (<i>n</i> =45)	9.0	7.5		
	High-alliance (<i>n</i> =39)	8.44	9.5		
Level 6 – Obsessional					
	Low-alliance (<i>n</i> =45)	24.0	15.3		
	High-alliance (<i>n</i> =39)	25.9	13.2		
Level 5 – Neurotic					
	Low-alliance (<i>n</i> =45)	14.2	9.3		
	High-alliance (<i>n</i> =39)	17.5	11.7		
Level 4 – Minor-Image Distortion					
	Low-alliance (<i>n</i> =45)	12.0	9.9		
	High-alliance (<i>n</i> =39)	10.4	8.1		
Level 3 – Disavowal					
	Low-alliance (<i>n</i> =45)	25.1	11.0		
	High-alliance (<i>n</i> =39)	26.2	13.2		
Level 2 – Major-Image Distortion					
	Low-alliance (<i>n</i> =45)	7.1	7.3		
	High-alliance (<i>n</i> =39)	5.0	6.0		
Level 1 –Action					
	Low-alliance (<i>n</i> =45)	8.6	8.9		
	High-alliance (<i>n</i> =39)	6.6	7.5		

Table 2. Mean ODF & Defense Levels for Low-alliance & High-alliance Sessions

Table 3. Correlations between Mean Depth, Sum Interpretations and OverallDefensive Functioning (ODF)

Mean Depth & Overall Defensive Functioning (ODF)			
Low-Alliance	.30* (.05)		
High Alliance	.07 (.64)		
Sum Interpretation & Overall Defensive Functioning (ODF)			
Low-Alliance	06 (.72)		
High Alliance	12 (.45)		

Level 7 – Adaptive					
Low-alliance (<i>n</i> =45)	.23 (.13)				
High-alliance (<i>n</i> =39)	.19 (.25)				
Level 6 – Obsessional					
Low-alliance (<i>n</i> =45)	.24 (.12)				
High-alliance (<i>n</i> =39)	.20 (.23)				
Level 5 – Neurotic					
Low-alliance (<i>n</i> =45)	03 (.84)				
High-alliance (<i>n</i> =39)	14 (.41)				
Level 4 – Minor-Image Distortion					
Low-alliance (<i>n</i> =45)	.10 (.49)				
High-alliance (<i>n</i> =39)	13 (.45)				
Level 3 – Disavowal					
Low-alliance (<i>n</i> =45)	.48* (.00)				
High-alliance (<i>n</i> =39)	16 (.33)				
Level 2 – Major-Image Distortion					
Low-alliance (<i>n</i> =45)	09 (.56)				
High-alliance (<i>n</i> =39)	04 (.82)				
Level 1 –Action					
Low-alliance (<i>n</i> =45)	12 (.43)				
High-alliance (<i>n</i> =39)	06 (.73)				

Table 4. Correlation Between Mean Depth & Defense Levels

Transition to Chapter 4

In the previous investigation, defense interpretation depth was examined empirically. The findings suggest that it may be a promising avenue of investigation although further research is necessary. Interestingly, differences emerged between mean interpretation depth when comparing participants in low-alliance and high-alliance sessions. It seems as though the relational context within which defense interpretations are made will affect the manner in which the intervention is applied by therapists and heard by patients. While the alliance was not the main focus of the study per se, it may represent a superordinate category within which depth of interpretations becomes relevant. Therefore, choosing a random therapeutic session without taking into consideration the strength of the alliance at that particular moment may obscure important aspects of the therapeutic process one of which is interpretation depth. In an effort to continue this line of reasoning, Manuscript 3 also examines the defense interpretation depth, albeit from a different prospective. More specifically, Manuscript 3 will investigate the moment-to-moment interactional process that characterizes psychotherapy sessions using lag sequential analysis. Unique to this methodology is the ability to detect moment-to-moment variations in therapist and patient utterances. In doing so, it is believed that important patterns will emerge that are not necessarily discernible when entire sessions and/or treatments are examined.

CHAPTER 4- INVESTIGATION OF PRINCIPLE 1- DEFENSE

INTERPRETATION DEPTH REVISITED

Running Head: THE INVESTIGATION OF DEFENSE INTERPRETATION DEPTH

The Investigation of Defense Interpretation Depth Using LAG Sequential Analysis

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Abstract

This study investigated the association between therapist interventions and patient defensive functioning in *high-alliance* and *low-alliance* sessions over the course of short-term dynamic psychotherapy (STDP) (n= 22). Lag sequential analysis was used to determine if there were: 1) predictable sequences of therapist interventions in low-alliance sessions and sequences of therapist interventions in high-alliance sessions and whether these two differ, 2) predictable sequences of patient defenses that lead to sequences of therapist interventions in high-alliance sessions and sequences of therapist interventions and sequences of therapist interventions in high-alliance sessions and sequences of therapist interventions in high-alliance sessions and whether these two differ, and finally 3) predictable sequences of therapist interventions that lead to sequences of patient defenses in low-alliance sessions and sequences of therapist interventions that lead to sequences of patient defenses in low-alliance sessions and whether these two sequences differ. Results suggest that sequences between alliance session groups are different. Specifically, defense interpretation depth unfolds in a predictable fashion during a low-alliance sessions while supportive strategies appear more predictable during high-alliance sessions.

Keywords: defense mechanisms, interpretation, therapist technique, psychodynamic therapy

The Investigation of Defense Interpretation Depth

Using Lag Sequential Analysis

In general, the use of interpretations has been associated with positive outcome in psychodynamic psychotherapy (Orlinsky, Grawe, & Parks, 1994; Orlinsky, Ronnestad, & Willutsky, 2004). However, the relationship between interpretation and outcome may be related to a number of factors including patient characteristics (Ogrodniczuk et al., 1999; Piper et al., 1993), and the therapeutic alliance (Banon, Evan-Grenier, & Bond, 2001).

Psychotherapy studies often fail to account for the interactive manner in which psychotherapy unfolds and analyze psychotherapy process from a static perspective. Oftentimes, interpretations are summed up or averaged across entire treatments in an attempt to answer the question "how much is needed?" By doing so, these studies neglect to examine how the interaction of patient and therapist in psychotherapy is a shifting and non-linear process.

Several studies (Drapeau et al., 2008; Milbrath et al., 1999; Terraz, de Roten, Crettaz, de Roten, Drapeau, & Despland, 2004) have been drawn to lag sequential analysis in an attempt to capture a more accurate view of how the use of therapeutic techniques in psychotherapy actually transpires. Using lag analysis, Milbrath and colleagues (1999) found that therapists structured their interventions around patient level of subjective distress and functioning. They also found greater proportions of defense interpretations used with patients who showed better overall functioning.

In a pilot study, Terraz et al. (2004) concluded that therapists often have one goal in mind when using interventions with patients. The one notable exception was the finding that alternating use of supportive and interpretive interventions was associated with improving alliances. The authors suggest that therapists should exercise caution when making interpretations in dynamic psychotherapy. However, this study did not consider the content of the interpretation as a potential factor in the analysis. It would be reasonable to assume that not simply dosage effects, as pointed out by Terraz et al. (2004) but also the content of interpretations (e.g., depth) could have an effect on both the alliance and patient defenses; not only too many interpretations but also interpretations that are addressing material that is too far outside the patient's level of awareness should be examined.

Drapeau and colleagues (2008) found that both therapists' use of interventions and patients' use of defenses could be segmented into predictable chains of sequences. However, they failed to find an interaction between the two. This may be due in part to the fact that the study examined brief psychodynamic interventions (BPI: 4 sessions) and thus important aspects of the patient-therapist interaction had yet to be established in the process. This is further confounded by the fact that only session one of the BPI was investigated. In addition, Drapeau et al. (2008) did not consider the state of the therapeutic alliance for the sessions included in the analysis, which may explain why they failed to find an interaction between therapist interpretation and patient defenses. Also, no study to date has considered the depth of defense interpretation in a lag analysis. Defense interpretation depth has been identified as a potential important avenue of enquiry for psychodynamic psychotherapy research (Petraglia, Bhatia, & Drapeau, 2013) and refers to the degree to which a therapist interpretation addresses unconscious material that is assumed to be deeper in consciousness. It was first proposed by Fenichel (1941) as the "surface to depth" rule and later described in greater detail by Greenson (1967) in his examination of therapeutic technique in psychodynamic psychotherapy.

In an attempt to address some of the limitations mentioned above, this study used lag sequential analysis to study short-term dynamic psychotherapy (STDP). In contrast to previous studies that have used this methodology, the present study incorporated therapeutic technique, alliance, and defense mechanisms into the analysis.

More specifically, this study examined whether there are: 1) sequences of therapist interventions in low-alliance sessions and sequences of therapist interventions in high-alliance sessions and whether these two differ, 2) sequences of patient defenses that lead to sequences of therapist interventions in low-alliance sessions and sequences of therapist interventions in high-alliance sessions and whether these two differ, and finally 3) sequences of therapist interventions that lead to sequences of patient defenses in lowalliance sessions and sequences of therapist interventions that lead to sequences of patient defenses in high-alliance sessions and whether these two sequences of patient

Method

Participants

The present naturally selected sample consists of 22 students who received one to two sessions per week of manualized (Gilliéron, 1997) Short-Term Dynamic Psychotherapy (STDP) at the University of Lausanne, Switzerland (UNIL-EPFL), ranging in duration from six months to one year. This particular form of treatment has already been in use for many years in Lausanne. Participants were students who were at least 18 years old referred to the UNIL-EPFL outpatient clinic for psychiatric or psychotherapeutic assessments. They received an information document and were given a written informed consent form to read and fill out. All participants presented with an anxiety disorder, depressive disorder, or personality disorder that satisfied DSM-IV-TR criteria (APA, 2001). Participants who showed signs of organic or delirium disorder, substantial alcohol or drug dependence, schizophrenia or other psychotic disorders, bipolar disorders, mental retardation, and antisocial personality disorder were excluded from the sample. Diagnoses were made by an independent clinician on the basis of a formalized DSM-IV-TR semi-structured interview.

The sample for this study was drawn from a larger sample of psychotherapy process research from the University of Lausanne, Switzerland. The average age of participants for the sample was between 19 and 30 years of age (M= 24.36, SD=3.02). Participants received on average 31.55 sessions (range 8-44 sessions) of STDP.

The present STDP sample addresses some limitations from previous studies that have investigated therapeutic technique and defense mechanisms. Most significantly, Ambresin, de Roten, Drapeau, and Despland, 2007, Despland, de Roten, Despars, Stigler, and Perry, 2001, and Drapeau et al., 2008 have all examined an ultra-brief (4 sessions) version of psychodynamic psychotherapy, which is not necessarily an accurate representative of the usual manner in which dynamic psychotherapy is conducted.

Psychotherapists

The psychotherapists recruited for the current study consisted of nine (5 male and 4 female) experienced STDP clinicians and have on average more than 10 years of

experience with the model. Each psychotherapist saw on average 2.44 participants. These psychotherapists are also responsible for supervising trainees at the center for psychoanalytic psychotherapy (CEPP) at the UNIL-EPFL in Lausanne, Switzerland.

Instruments

Measures included in the current study were designed to assess the therapeutic alliance, therapist interventions, and defense mechanisms.

Alliance. Alliance strength for individual sessions was rated using the Helping Alliance Questionnaire (HAq-II: Luborsky et al., 1996). The HA-q shows acceptable levels of convergent validity with other self-rated measures of alliance in use today in research (Luborsky, 2000). Two such measures, the Working Alliance Inventory (r = .74) and California Psychotherapy Alliance Scale (r = .74) have been shown to be correlated with the HA-q.

The alliance was assessed at every session in the current study. Each participant's individual alliance score was used to determine what constituted a low-alliance or high-alliance session. For example, a high-alliance session was defined as a HA-q score that was 1.5 standard deviations above the average HA-q score for that individual participant. Likewise, a HA-q score of 1.5 standard deviations below that individual participant's mean alliance score was used as the cut-off for the low-alliance session. Using this method allowed for each participant's alliance score to set the defining criteria for identifying either a low-alliance and high-alliance session. Only sessions identified as either a low-alliance or high-alliance session were included in the present analysis. In total, there were 19 low-alliance and 22 high-alliance sessions for the current sample of 22 participants. The discrepancy between the number of low-alliance sessions and

number of high-alliance sessions is due to the fact that it was not possible to transcribe three low-alliance sessions because of low audio quality.

Therapist interventions. Therapist interventions in-session were captured using the Psychodynamic Intervention Rating Scale (PIRS: Cooper et al., 2002). The PIRS categorizes 10 types of interventions divided into two broad categories: interpretive interventions (defense interpretations, transference interpretations), and supportive interventions (clarifications, reflections, associations, support strategies, questions, contractual arrangements, work-enhancing strategies, acknowledgments). Defense and transference interpretations are further classified into "levels" or depths of interpretation ranging from one to five. This organization of interpretations by depth was conceptualized by Greenson (1967) originally as a way to guide clinical work. Level 1 interpretations focus on some defensive or transference process that the patient unconsciously engages in during therapy. Levels 2, 3, and 4 are organized around the concept of whether or not the therapist mentions a motive (implicitly or explicitly) for the process that has been highlighted by the therapist for analysis. The final level of depth for an interpretation is Level 5 when using the PIRS. In these cases, the rater identifies that the interpretation includes not only the process and motive used by the patient but also the historical origins of this process from the patient's life.

Raters were trained to classify the verbal utterances of therapists during psychotherapy sessions by means of verbatim transcripts according to the interventions described above. If the rater decides that an interpretative intervention was used by the therapist then he or she must also note the depth level of the interpretation from 1-5. Approximately 20% of the sample was selected to calculate interrater reliability using Intra-Class Coefficients (ICC). Disagreements were resolved by means of a consensus meeting where both raters compare their ratings of the same transcript. Pre-consensus interrater reliability between raters is expected to be above .70 prior to the consensus meeting. If a rater falls below that level of reliability, retraining on the PIRS may be necessary.

Reliability for the PIRS of the larger sample from which the current sample is drawn has been published elsewhere (Banon et al., 2013); mean intra-class coefficients (*ICC* 2, 1) for all PIRS categories was .77 (range = .65-.94).

Defense mechanisms. The observer-rated Defense Mechanism Rating Scales (DMRS: Perry, 1990) was used to rate defense mechanisms for the sample. The scale requires trained raters to rate 30 defenses based on a seven-level hierarchy (see Table 1 below) and compute an overall defensive functioning (ODF) score. Each defense level consists of anywhere from three to eight individual defense mechanisms. The hierarchy of defense levels is grounded in empirical research (Vaillant, 1993; Vaillant, Bond, & Vaillant, 1986) that conceptualizes defenses mechanisms existing on a continuum from adaptive/ mature to maladaptive/immature. Numerous studies have used the DMRS in psychotherapy studies and reliability of the measure is well documented in the literature (Perry & Henry, 2004; Perry & Hoglend, 1998; Perry & Kardos, 1995).

Insert Table 1

Raters were trained to segment and rate defense mechanisms from the verbal utterances of participants' transcribed psychotherapy sessions according to the method outlined by Perry (1990) in the DMRS manual. The DMRS is scored in two parts. The first score, overall defensive functioning (ODF), is calculated by taking the weighted mean of each defense mechanism scored by level. ODF is a global measure of overall defense maturity for the participant for a particular session. For example, an ODF = 5.5 would indicate that for a given psychotherapy session, the participant's average defense falls at the midpoint of level 5 (Neurotic) and level 6 (Obsessional). The second score for the DMRS involves calculating the proportion of defenses that constitute each level for the participant's session. Proportional scores provide a more detailed picture of which defense levels are employed most often by participants. Approximately 20% of all transcripts used in the study were selected for interrater reliability analysis. This was calculated in order to determine level of agreement for different raters. Intra-Class Coefficients (*ICC* 2, 1) for the DMRS of the current sample varied between .81 and .95 for defense levels (Kramer, Despland, Michel, Drapeau, & de Roten, 2010).

In order to conduct a lag sequential analysis, it was necessary to combine DMRS defense levels into 3 categories: Immature (Levels 1-4: total of 12 defense mechanisms), Mid-level (Levels 5-6: total of 7 defense mechanism), Mature (Level 7: total of 8 defense mechanisms). Dividing the defense levels in this manner maintains the empirically validated hierarchy of defenses most commonly used in the literature on which the DMRS is based (Perry, Beck, Constantinides, & Foley, 2008; Vaillant, et al., 1986). A number of other defense measures also use this organization of defenses (e.g. Defense Style Questionnaire: DSQ, Andrews, Singh, & Bond, 1993). Defenses in this hierarchy are grouped together based on general functionality. For example, Levels 1 through 4 are considered to be the least mature or maladaptive defenses, whereas Level 7 defenses are

theorized to be signs of psychological maturity and show the ability to resolve intrapsychic conflict.

Data analysis

Lag sequential analysis is a statistical procedure that aims to identify patterns of organized behaviors from a large set of categorized behaviors. These patterns are divided into chains, where the maximum length is predetermined by a series of non-random conditional probabilities. With this analysis, a particular behavior is chosen as a criterion or target event (e.g., therapist comment) then transitional probabilities are computed for each subsequent behavior (Bakeman & Gottman, 1997). The behavior that occurs after the target event is referred to as Lag 1, the second as Lag 2, and so on. These transitional probabilities are then tested for significance using z-scores. Z-scores above 1.65 represent a trend, while those above 1.96 represent statistical significance at the .05 level. Every time the specified behavior of interest occurs, the probabilities are used to determine the likelihood that we can predict a subsequent behavior. The equation K^2 multiplied by 4 (or K^2 X 4) is typically used to determine the total number of lags that can appropriately be investigated given the amount of data available, where K refers to the total number of codes (Bakemen & Gottman, 1997). In the first part of the analysis where therapist interventions only were examined, K is equal to seven: three codes representing the three levels of interpretation depth (D1, D3, D5) and four codes representing supportive strategies (Reflection, Support Strategies, Associations, Clarifications). In the second and third part of the analysis, K is equal to ten: the seven codes representing therapist

interventions plus three codes for patients' defensive functioning (immature, mid-level, mature).

Results

The first part of the analysis sought to determine whether there were sequences of -therapist interventions in low-alliance sessions and sequences of therapist interventions in high-alliance sessions and whether these two differ using the PIRS to categorize interventions. In total, 19 low-alliance sessions were examined and 22 high-alliance sessions were examined.

Low-alliance Sessions

Results revealed patterns of interventions used by therapists in these sessions. The first sequence, depicted in Figure 1, showed that when therapists make defense interpretations at level 1 (D1/T1) they would then follow up with a series of two deeper defense or transference interpretations (D5/T5) in low-alliance sessions. The second sequences showed a somewhat similar pattern albeit in a less linear fashion. Therapists would begin with a mid-level interpretation (D3/T3) before using a non-interpretive technique aimed at reflecting the emotional content of the patient's words back to him or her (Reflection). Next, the therapist would make a low level interpretation (D1/T1) before following it up with a deeper level interpretation (D5/T5). In both sequences the lag chains end with the deepest level of defense interpretation. The significant lags are shown below, along with the *z*-scores for each connection in the sequence.

The second and third lag analyses incorporated therapist interventions as well as patient defense mechanisms, depicted in Figure 2. In the second part of the analysis, four sequences were found for low-alliance sessions. In total, five sequences were found. In the first sequence, an immature defense (LD) was followed by a therapist support strategy (SS) followed by a mid-level defense interpretation (D3/T3). However, this lag represents a trend (z > 1.65) and is not statistically significant.

A second sequence, started with a mid-level defense (MD) followed by two therapist associations (Ass) is shown below in Figure 2.

Insert Figure 2

The third, fourth, and fifth sequences all started with a mature-level defense (HD). These sequences are statistical trends. In the third sequence, the mature-level defense (HD) was followed by a mid-level defense (MD) and then followed by a deep defense interpretation (D5/T5). The fifth sequence started with a mature-level (HD) defense followed by another mature-level defense (HD), followed by a therapist reflection (R). Finally, the fifth sequence again started with a mature-level defense (HD) followed by a mid-level defense interpretation (D3/T3), followed by a low-level defense interpretation (D1/T1). These three sequences are depicted in Figure 3 below.

Insert Figure 3

The third lag analysis also incorporated therapist interventions and defense mechanisms. No sequences were observed for therapist interventions that led to patient defense for low-alliance sessions.

High-alliance Sessions

The lags described above for the low-alliance sessions were not found in the highalliance sessions examined. The sequences of supportive interventions found for highalliance sessions are shown in Figure 4. This sequence represents a statistical trend. Therapists would start with a support strategy aimed at providing support to the patient and persist for up to four lags. Although a number of significant smaller chains (Lag 1) were found in the high-alliance sessions that linked different supportive strategies together, no replicable sequences past Lag 1 were found for different sessions and thus will not be reported.

Insert Figure 4

As was the case for low-alliance sessions, high-alliance sessions were examined for patient defense that led to therapist interventions. In total three sequences were found (shown below in Figure 5). All three of these sequences began with immature-level defense (LD). The first sequences continued with two therapist support strategies (SS). The second sequence continued with a mature-level defense (HD), followed by a therapist support strategy (SS). The final sequence was significant to Lag 3 and followed the original immature defense (LD) with a therapist association (Ass), followed by a clarification (CL). No sequences were observed for therapist interventions that led to patient defense for low-alliance sessions.

Discussion

It is important to note that a number of the sequences reported were not statistically significant but rather represent a statistical trend. As a result, the following conclusions should be interpreted with caution. In the interest of illuminating the importance of defense interpretation depth as a variable of interest, however, they will be included in the discussion section of this study.

Differences were found when comparing the interventions of therapists for lowalliance and high-alliance sessions in this sample of patients seen in short-term (40 sessions) dynamic psychotherapy (STDP) at the University of Lausanne. These results are consistent with previous studies by Drapeau et al. (2008) and Terraz et al. (2004). Drapeau et al. (2008) found that therapists tend to structure their interventions in psychodynamic psychotherapy in a predictable manner. For example, both the present study and Drapeau et al. (2008) found that therapists tend to use a number of support strategies in sequence. However, the present study found this sequence in the highalliance sessions and not in low-alliance sessions. This is most likely due to the fact that the Drapeau et al. (2008) study did not specifically examine low-alliance and highalliance sessions. Thus, it appears that different sequences account for the behaviour of therapists during a low-alliance session. In high-alliance sessions, the alliance is by definition stronger and may therefore be associated with the use of more supportive sequences than is the case when the alliance is in a weaker or disrupted state.

One interesting finding to emerge from the data suggests that therapists make progressively deeper interpretations within a low-alliance session in a predictable fashion. It is not possible to determine from this data however whether or not these sequences are either the cause or effect of the low-alliance. Nonetheless, the results indicate that therapists using deeper interpretations should exercise caution especially if they have reason to suspect that the therapeutic alliance is not in an optimal state. Deeper defense interpretations may represent a "high-risk/high-gain" therapeutic challenge in that the potential to point something out to the patient is evident as the low-alliance is unfolding in the session. On the other hand, it may alienate the patient and make him or her feel judged or criticized. It also may raise issues regarding timing of the interpretation as a means of understanding whether or not the benefits outweigh the gains in a particular therapeutic interaction.

Also consistent with previous investigations was the finding that therapists tend to have one goal in mind when intervening in-session (Terraz et al., 2004). Sequences for therapist interventions showed an interpretive end in mind with respect to low-alliance sessions and a supportive one in the high-alliance sessions. It would be premature to conclude that support is associated with high-alliance and interpretation with low-alliance as that does not accurately represent the data but perhaps the idea of having one "deep interpretation" goal in mind (or reaching the D5/T5 level of interpretation) is problematic. The present study did not find any evidence to support Terraz et al.'s (2004) finding that alternating support and interpretation was associated with improving alliances. There are two possible reasons for this, first it is possible that since Terraz et al. (2004) did not examine the low-alliance and high-alliance cycle but rather overall alliance score that these findings did not emerge. Second, it is possible that therapists depart from this pattern when the alliance is in trouble into a more linear way of intervening where they interpret difficulties in the therapeutic relationship and use support to get the relationship back into a more stable position. This is speculative at the current time but future studies could potentially target this notion.

Contrary to what Drapeau et al. (2008) found, the current investigation found sequences of defenses that led to therapist interventions, providing evidence for the current study's second hypothesis. This finding is unique because it suggests that patterns of interaction in a therapeutic dyad differ when the added consideration of the therapeutic alliance is considered. That is, low-alliance sessions and high-alliance sessions showed differing sequences of interactions when the sequences began with patient defense mechanisms. Interestingly, the opposite was not true, and no sequences were found for therapist interventions that led to patient defenses. It is possible that psychotherapists are reacting to patient defense mechanisms and intervening accordingly whereas patients may not be paying as close attention to the interventions of their psychotherapists.

Beginning with low-alliance sessions, it seems as though therapists are using a combination of support and interpretation with all three levels of defense mechanisms (immature, mid-level, & mature defenses). Consistent with what was observed when therapist interventions only were examined, patterns involving the use of defense interpretations were present only in low-alliance sessions and not in high-alliance sessions. Thus, even though similar overall defensive functioning was observed between

the two session groups, it appears that therapists differ in the way they deal with these defenses technically. For instance, a therapist appears more likely to interpret a defense-like denial if there is a therapeutic low-alliance, whereas the same therapist may use a support strategy had that defense been used in a high-alliance session.

No evidence was found to support the third hypothesis, or in other words no lags were found for therapist interventions that predicted patient defenses for either lowalliance or high-alliance sessions. This result is somewhat surprising given that lag chains were found for the other two analyses. One potential explanation for this result could be that patients are not reacting to therapist interventions on a moment-by-moment basis and would not be highlighted by the lag methodology. Patient reactions to therapist interventions could possibly be seen in more global measures such as alliance ratings or attitudes toward their therapist and therapy. Since lag only examines the moment-tomoment unfolding of psychotherapy these more global aspects may be unmeasurable by lag analysis.

Studies that use lag methodology are susceptible to statistical power issues and the current study also suffers from this limitation. The number of sessions used in the analysis was limited due to the fact that only participants who experienced low-alliance and high-alliance sessions were included. While this can be seen as simply a result of the fact that a highly specialized therapeutic phenomenon was examined (therapeutic lowalliance and defense mechanisms), by the same token it also reduces the overall statistical power of the dataset by limiting the number of usable psychotherapy sessions. Furthermore, since a number of sequences found were statistical trends, more statistical power would shed light on whether or not these trends become significant or remain at the trend level.

Another limitation to note is that although not directly investigated, individual psychotherapist effects may have played a role in the findings. Namely, some psychotherapists may have more predictable patterns of therapeutic interaction than others thereby influencing the degree to which patterns in the form of lags are represented. This was not investigated in the current study.

Future research could use lag analysis to examine how psychotherapist-patient dyads behave over the course of psychotherapy and elucidate whether predictable patterns emerge within a dyad that either leads to or causes a disruption in the alliance. In order to do this however, larger studies must be conducted. Specifically, it would be important to determine whether the interpretation of defense mechanisms is a fruitful avenue of therapeutic investigation, both in the clinical as well as the empirical sense.

Conclusion

This investigation suggests that defense interpretation depth is a valuable avenue of study for psychodynamic psychotherapy. Findings indicate that therapists make progressively "deeper" interpretations of patient defense mechanisms during low-alliance sessions. Supportive strategies were associated more with high-alliance sessions. Examining the moment-to-moment unfolding of psychotherapy provided a different vantage point from which to observe therapeutic action and highlights the role played by micro-process variables in psychotherapy research.
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Level	Defense Mechanism
Level 7 – Adaptive	Self-assertion, Self-observation, Affiliation,
	Altruism, Sublimation, Suppression, Anticipation,
	Humour
Level 6 – Obsessional	Undoing, Isolation of Affect, Intellectualization
Level 5 – Neurotic	Reaction Formation, Displacement, Dissociation,
	Repression
Level 4 – Minor-Image Distortion	Idealization of Self/Other, Devaluation of
(Narcissistic)	Self/Other, Omnipotence
Level 3 – Disavowal	Denial, Projection, Rationalization, Autistic fantasy
Level 2 – Major-Image Distortion	Splitting of Self/Other, Projective Identification
(Borderline)	
Level 1 – Action	Acting Out, Passive-Aggression, Help-Rejecting
	Complaining (HRC)
	Level 7 – Adaptive Level 6 – Obsessional Level 5 – Neurotic Level 4 – Minor-Image Distortion (Narcissistic) Level 3 – Disavowal Level 2 – Major-Image Distortion (Borderline)

Table 1. The Hierarchy of Defenses



Figure 1. Lags for Therapist Interventions, Low-alliance Sessions







Figure 3. Lags for Patient Defenses and Therapist Interventions, Low-alliance Sessions











CHAPTER 5- GENERAL DISCUSSION

Implications for Psychotherapy and Psychology

Psychodynamic psychotherapy is a form of therapy widely practiced by psychotherapists (Gunderson & Gabbard, 1999; Vaughan et al., 2000). Therefore, understanding the underlying factors of this modality is a fundamental aspect of therapeutic intervention. Individuals who suffer from mental health problems are an enormous strain on health care systems and thus, therapies with the prospective to change underlying personality structures responsible for these difficulties could prove to be immensely helpful (Lazar, 2010). Psychodynamic psychotherapies have indeed shown that they are capable of sustained psychological change (Bond & Perry, 2004, 2006; Leichsenring & Leibing, 2003; Leichsenring, & Rabung, 2008; Shedler, 2010) but more research is necessary to understand the process by which this is achieved.

Researchers have called for more investigation focusing on the principles and interventions of this form of psychotherapy (Levy, Ablon, & Kaechele 2012). The authors outline eight recommendations for guiding future research studies in order to advance the field beyond its current state. Their second recommendation proposes "using theory as a guide and testing theoretically powerful questions" (Levy, Ablon, & Kaechele 2012, p. 16). This thesis has attempted to address this very question by allowing theory to serve as the platform from which to develop and design an empirical research stream.

The strength of the current research design lies in the combined focus on both theory and empirical investigation. As such, it allows for a better understanding of the inner workings of psychodynamic psychotherapy. The first study (Chapter 2) of this project provided a novel way to analyze, reorganize, and synthesize the large volume of rich theoretical material available in psychodynamic psychotherapy. This led to the construction of a table that served two purposes. First, the table provided guidance and structure for the subsequent proposed empirical aspect of the project. In this fashion, ideas generated from Manuscript 1 were then investigated on a sample obtained from the University of Lausanne in Manuscripts 2 and 3 (Chapters 3 & 4). A direct link between defense theory and technique was established in an effort to bring the two fields closer together.

The second purpose of the table generated from Manuscript 1 was to serve as a stand-alone work on how psychotherapists should address the defensive behavior of their patients in-session. While much of the information presented in the study is not new per se, it would certainly help to streamline the process of teaching novice therapists how to think about and interpret defense mechanisms in psychodynamic therapy. This would be achieved by having the principles serve as guidelines for therapeutic interventions. Over time, research could determine which principles are essential for positive psychotherapy outcome. Training programs could then favour those principles that show the most robust relationship with outcome and thus create a stronger relationship between the in-session activity of therapists and the process by which patients experience change in psychotherapy.

Returning to the research suggestion mentioned above by Levy, Ablon, and Kaechele (2012) regarding the importance of theory in guiding research, defenses were chosen as the theoretical basis of this thesis precisely because they fit the criteria of being amenable to empirical investigation and are an essential element of psychodynamic theory. Summers and Barber (2010) have called for what they refer to as a "theorectomy" in psychoanalytic practice. The authors point out that the field is bogged down by many jargon-heavy theoretical constructs that serve little clinical utility and have no empirical support. In his response article to the psychotherapy research community Shedler (2011) shows how the concept of symptom substitution is still mistakenly attributed to psychodynamic therapy by critics without realizing how this concept holds little currency in modern psychodynamic research and practice.

Reiterating the evidence base for the importance of defense mechanisms in psychodynamic therapy is beyond the scope of this discussion but clearly the study of defense mechanisms has stood the test of time in psychology. The focal point relevant to this discussion is that patients typically begin therapy with less adaptive defensive functioning (Bond, 2004; Bond & Perry, 2004; Perry & Bond, 2006; Perry & Perry, 2004; Sammallahti & Aalberg, 1995; Sinha & Watson, 1999; Zanarini, Weingeroff, & Frankenburg, 2009) and move toward a more adaptive level of defensive functioning when psychotherapy is effective (Ambresin, de Roten, Drapeau, & Despland, 2007; Bond & Perry, 2004; Perry & Bond, 2012; Roy, Perry, Luborsky, & Banon, 2009; Winston, Winston, Samstag, & Muran, 1993). Subsequently, any efforts aimed at furthering the knowledge-base of how therapeutic technique interacts with and helps to change defensive functioning would be a welcomed addition to psychotherapy research.

The empirical sections of this thesis (Chapters 3 & 4) attempted to begin the evaluative aspect of the principles by examining one principle derived from the table generated in Manuscript 1. These two studies should be viewed as a first step toward investigating the technical principles within the context of the therapeutic alliance. Specifically, the second study sheds light on the process of depth of defense interpretation (Principle 1) in psychodynamic psychotherapy and the relationships between interpretation and defense mechanisms within sessions that show differing alliance states.

Manuscript 2 found that defense interpretation depth differs when a low-alliance session and high-alliance session are compared for the same patient. Specifically, lowalliance sessions showed that therapists made deeper interpretations on average. It is not possible to determine from this study whether or not the greater interpretation depth in fact caused the alliance score to drop or is simply the result of the therapist attempting to intervene when the alliance is clearly not in an optimal state. If compared to the results for Principle 1 from Manuscript 1, these findings indicate what Reich (1936) discusses as destabilizing interpretations that damage the working alliance. Principle 1 also implies a certain temporal aspect to defense interpretation, namely progressing with deeper defense interpretations as psychotherapy unfolds, that question was not examined specifically by Manuscript 2. Since Overall Defensive Functioning (ODF) was not significantly different between session groups (low vs. high alliance) it is not possible to state that the use of lower defenses in general explains why defense interpretation depth is higher in the low-alliance group. In this sense, alliance strength may serve as a mediator in that it explains why mean interpretation depth is higher in the low-alliance group.

The fact that ODF was not related to alliance group may indicate that therapist intervention strategy is independent of the level of defensive maturity shown by patients during the session. This is not to say that in-session defensive functioning is not important but rather that researchers may be placing too much emphasis on global measures of defensive functioning (e.g., ODF) and not enough weight on more nuanced aspects of the defensive profile used by patients in-session. Along these lines, Manuscript 2 also found a correlation between disavowal defenses and mean interpretation depth for low-alliance sessions but not high-alliance sessions suggesting that particular types or levels of defenses may become important depending on the therapeutic situation faced by the therapist, namely in this case, a lower quality of working alliance.

Manuscript 3 also investigated Principle 1 –defense interpretation depth, by using methodology that is capable of highlighting the nuanced moment-to-moment interaction that characterises a therapeutic session, specifically lag sequential analysis. Evidence was found for precisely what Fenichel (1941) called the "surface-to-depth" rule in that lags revealed progressively deeper chains of defense interpretations during a psychotherapy session. Clinically, this would present as therapists making interpretations that first point out the function of the defense to patients, followed by a more detailed interpretation later on in which the function combined with the motive behind the defense was also presented to the patient. Finally, the therapist would interpret the function of the defense, motivation for its use, and the historical basis for where it was learned in the past, usually in childhood.

Curiously the surface-to-depth approach to interpretation was only found in lowalliance sessions and not high-alliance sessions. It is not possible to determine from the current study whether this is the cause or effect of a low-alliance session but certainly it points to the fact that depth has some influence over patient defense use. High-alliance sessions on the other hand show much more use of supportive strategies both in therapist use of them as a therapeutic aim as well as a response to defensive material brought to the therapist during high-alliance sessions. The results of Manuscripts 2 and 3 are consistent in that both point out that interpretation depth, as defined by theorists such as Fenichel (1941, 1945), Greenson (1967), and others discussed in Manuscript 1 is not only a viable avenue of investigation but also an important one with clear empirical ramifications for psychotherapy research. Across both empirical investigations, one finding emerges: deeper defense interpretations are associated with sessions that show lower alliance scores. What this means for clinicians is open to interpretation at the moment. However, several important points must be examined before this notion is addressed.

First, the directionality of the effect must be investigated further. The results of these investigations are not capable of explaining whether the technical interventions researched by these studies actually cause the disruption in the therapeutic alliance and if so precisely how this process takes place. These findings present a snapshot of a therapeutic process that is both dynamic and progressive. As a result, prematurely generalizing from this snapshot may give researchers and clinicians the mistaken idea that defense interpretations should be avoided in psychodynamic therapy.

Second, the question of outcome was not directly examined. That a strong therapeutic alliance is related to positive outcome is a well-known finding in psychotherapy research (Horvath & Symonds, 1991) but the relationship is complex. As such, it is not possible to extrapolate from the current research to make conclusions regarding psychotherapy outcome. However, the relationship between therapeutic technique itself and outcome is also complex. Lambert and Hill (1994) suggest that sequential analyses be used more frequently in psychotherapy outcome studies to identify mini-outcomes in process variables. Although this question was not addressed in the present research specifically, it could be argued that Manuscript 3 examines a process variable like ODF that is expected to change over the course of treatment. No evidence was found in that study however to show that defenses actually changed during the session.

A future study could conceivably examine this question in more detail by attempting to understand whether defenses change in-session with the use of therapeutic techniques. This study would have to examine a greater number of sessions within the same treatment than were examined in the present studies so as to compare within treatment effects of the same techniques over time (i.e., over the course of treatment). One study (Perry et al., 2012) has shown that defenses may change in idiosyncratic ways in psychodynamic therapy depending on accuracy of defense interpretation. In that study, technique was examined as a variable that created the necessary condition, an accurate interpretation, for micro changes in session defensive functioning. These "micro" effects may potentially be additive over time and show a relationship with outcome, however at the moment this remains to be seen. The variable of defense interpretation depth could be treated in the same manner as accuracy and studied in relation to outcome.

A third important question emerging from this research is the role of noninterpretative techniques such as supportive strategies. Summers and Barber (2010) see psychodynamic therapy as "an amalgam of techniques, some of which are exploratory (interpretative), and some supportive, employed in the context of an important therapeutic relationship" (p. 12). While the bulk of the present research examined interpretative techniques, several lags show a relationship between supportive strategies and defense mechanisms. As mentioned above, supportive strategies were found in sequential lags for high-alliance sessions in Manuscript 3. Also, lower-level or less adaptive defenses used by patients were met by supportive strategies by therapists during high-alliance sessions but by a combination of support and interpretation in low-alliance sessions. These results are in contrast with previous findings by Despland et al. (2001) who suggested that support be used with less adaptive defenses and interpretation be used with more adaptive or mature defenses.

One way to answer this question would be to design a research study that examines the role played by each individual set of techniques before investigating them concurrently. Once this is achieved, the field could move on to addressing the role played by defense interpretation depth in psychodynamic therapy. One potential way to do this would be to design an experimental dismantling study in which deeper defense interpretations are made in one experimental group and not in the other. This would be similar to the FEST study conducted by Hoglend et al. (2008) on transference interpretations, however in this case, the aim would be to determine what effect on the therapeutic alliance or outcome it would have to either provide or remove deeper defense interpretations from treatment.

From a clinical standpoint, defense interpretation depth is a variable that holds significance for practicing psychodynamic therapists (Bhatia et al., 2013). One implication of the present research for clinicians is that defense interpretation is a concept that contains within it a number of more nuanced aspects of the intervention. That is, defense interpretation is not one intervention but rather an intervention with a series of branches that each contribute to making it effective. An analogy would be a tree trunk with branches stemming off in different directions. The trunk would be akin to the

concept of defense interpretation in general while the branches would be the different principles from Manuscript 1. Depending on the particular tree (i.e., interpretation), certain branches may be thicker and more important for the life of the tree just as certain aspects of a defense interpretation may be more important with a particular patient or in a particular situation. Whereas defense interpretation depth may be important for some therapeutic situations, interpretation accuracy or interpretation of resistance may be more important in other therapeutic situations.

For example, accurately interpreting patient A's use of denial as a means of minimizing alcohol consumption may be a central component of his or her therapy in that the therapist must identify that it is in fact denial that maintains the negative pattern in place, whereas patient B may already have a sense that he or she uses a particular defense without realizing the historical origins of the defense or the motive behind it. As such, interpretation depth becomes more important in the second case as the therapist's main clinical aim should be to help the patient understand this intricate relationship in the hope of developing insight as a means of overcoming the defense. Of course, in many cases more than one aspect of defense interpretation will be important at the same time but using the principles as a means of thinking about defense interpretation could potentially help move the therapeutic work along.

The goal of this research would be to help streamline concepts and terms related to defense interpretations so as to condense the vast and rich existing clinical material available to practicing psychodynamic therapists all the while removing irreverent or unsupported ideas from practice. Psychotherapy training programs already teach a lot of the conceptual framework from which the principles in Manuscript 1 are derived. If research shows that the conclusions of Manuscript 1 are in fact supported empirically than helping to shape therapeutic acumen and practice could be done at the training level using these principles. A closer link between theory, research, and practice would theoretically be formed in that area of psychodynamic practice that focuses on defense mechanisms and their interpretation.

The current thesis thus attempts to draw a direct link between technique and process variables that could prove to be a benefit to psychotherapists currently practicing psychodynamic psychotherapy in that it provides a better understanding of how technique use by therapists unfolds in psychotherapy. As a result, this research is one way to bridge the gap that exists between research and practice in psychology. In an overall sense, this thesis attempted to expand the knowledge base of psychotherapy research aimed at uncovering the important "process" elements of psychodynamic psychotherapy.

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Appendix A: Authorization for Recording of Psychotherapy Session & General Consent

DUDA DEPARTEMENT UNIVERSITAIRE DE PSYCHIATRIE ADULTE HOSPICES CANTONAUX /

ETAT DE VAUD

AUTORISATION D'ENREGISTREMENT

Madame, Monsieur,

Vous avez accepté de participer à une étude sur l'efficience de la psychothérapie psychanalytique brève menée par le Centre d'Etude des Psychothérapies Psychanalytiques.

Par la présente, vous nous donnez votre accord pour que ces séances de psychothérapie individuelle soient enregistrées en audio.

Ces enregistrements sont à l'usage exclusif de la recherche. Certaines séances seront ensuite dactylographiées et rendues anonyme de manière à ce qu'aucune information permettant d'identifier l'un ou l'autre des participants ainsi que toute personne citée au cours des entretiens ne soit maintenue.

Lausanne, le

Signature :



DE PSYCHIATRIE ADULTE

HOSPICES CANTONAUX / ETAT DE VAUD

CONSENTEMENT ÉCLAIRÉ

Je, soussigné(e), accepte de participer à une recherche concernant l'efficience de la psychothérapie psychodynamique brève menée par le Centre d'Etude des Psychothérapies Psychanalytiques.

J'accepte de remplir les questionnaires qui me seront proposés au début et à la fin de la thérapie ainsi qu'après chaque séance.

J'accepte que ces entretiens soient dactylographiés par un collaborateur du Centre d'Etude des Psychothérapies Psychanalytiques.

J'ai été informé(e) que la recherche se fera sur la base d'un texte dactylographié anonyme et qu'aucune information permettant d'identifier l'un ou l'autre des participants ainsi que toute personne citée au cours de ces entretiens ne sera maintenue.

J'ai été informé(e) que, à ma demande, j'ai la possibilité de consulter le texte dactylographié de ces entretiens.

J'ai eu la possibilité de poser à la personne que j'ai rencontré pour la recherche toutes les questions que je me suis posées sur cette étude et j'ai compris l'information qui m'a été donnée.

J'accepte que les différents résultats de cette étude puissent être divulgués sous la forme de publications scientifiques et de présentations scientifiques, sachant que mon identité ne sera jamais dévoilée et que rien dans le texte de la publication ou de l'exposé ne permettra de me reconnaître, de reconnaître le thérapeute qui m'a traité ou toute personne citée au cours de ces entretiens.

Lausanne, le

Signature :



DEPARTEMENT UNIVERSITAIRE DE PSYCHIATRIE ADULTE

HOSPICES CANTONAUX / ETAT DE VAUD

CHEF DE DEPARTEMENT PROF. PATRICE GUEX

INFORMATIONS GÉNÉRALES

Madame, Mademoiselle, Monsieur,

Vous avez accepté de participer à une recherche menée par Le Centre d'Etude des Psychothérapies Psychanalytiques (CEPP) du Département Universitaire de Psychiatrie Adulte (DUPA) de Lausanne, ce dont nous vous remercions.

La participation à cette recherche implique pour vous deux choses :

1. Accepter que les entretiens soient enregistrés sur cassettes audio.

2. Remplir quelques questionnaires.

Vous trouverez dans cette enveloppe une série de questionnaires. Nous vous conseillons de choisir un moment tranquille dans votre journée pour remplir l'ensemble des questionnaires en une fois. Cela devrait vous prendre entre 50' et 60'.

Vous trouverez ci-joint les questionnaires à remplir suivants :

1. Une liste d'évaluation des symptômes (SCL-90)

Qu'est-ce que c'est? la <u>liste d'évaluation des symptômes</u>, abrégée <u>SCL-90</u> compte 90 brèves questions concernant des plaintes ou symptômes dont vous pourriez souffrir. Des instructions précises sont notées au début du questionnaire lui-même.

Durée du questionnaire? Environ 15 minutes.

2. Un questionnaire abrégé de Beck

Qu'est-ce que c'est? Ce questionnaire comprend 13 questions qui concernent les symptômes liés à la <u>dépression</u>.

Durée du questionnaire? Environ 10 minutes.

3. Un questionnaire d'auto-évaluation de l'anxiété (STAI)

Qu'est-ce que c'est? Ce questionnaire mesure deux types de symptômes liés à <u>l'anxiété</u> : ce qui correspond à votre état actuel, sur le moment, et ce qui correspond à votre tempérament habituel.

Durée du questionnaire? Environ 10 minutes.

4. Un questionnaire d'adaptation sociale (SAS)

Qu'est-ce que c'est? Le <u>questionnaire d'adaptation sociale</u>, abrégé <u>SAS-SR</u> compte 54 brèves questions concernant 4 domaines de votre existence: le travail, la vie sociale et les loisirs, la famille, les relations avec les enfants si vous en avez. Des instructions précises sont notées au début du questionnaire lui-même.

Durée du questionnaire? Environ 15 minutes.

5. Un questionnaire d'alliance aidante (HAq)

Qu'est-ce que c'est? Il s'agit d'un <u>questionnaire d'alliance thérapeutique</u> qui compte 11 brèves questions concernant votre relation avec le thérapeute que vous avez rencontré à la consultation des étudiants. Le questionnaire cherche à évaluer la qualité de la relation telle que vous la percevez.

Durée du questionnaire? Entre 5 et 10 minutes

6. Un inventaire de problèmes interpersonnels (IIP)

Qu'est-ce que c'est? <u>L'inventaire de problèmes interpersonnels</u> se compose de 127 questions concernant les difficultés que vous pouvez rencontrer dans vos relations avec les autres. Il est composé de deux parties: dans la première, vous devez juger ce qui vous est difficile de faire, dire, être, etc. face aux autres; dans la deuxième, vous devez juger ce que vous avez tendance à exagérer dans vos rapport avec les autres.

Durée du questionnaire? Environ 15 minutes.

7. Une mesure d'actualisation du potentiel (MAP)

Qu'est-ce que c'est? <u>La mesure de l'actualisation du potentiel</u> comprend 27 questions qui cherchent à évaluer votre degré d'autonomie par rapport aux autres et votre capacité d'adaptation.

Durée du questionnaire? Environ 10 minutes.

Une fois remplis, ces questionnaires doivent être envoyés par la poste à l'aide des enveloppes déjà affranchies. Ces questionnaires seront évalués de <u>manière anonyme</u> et <u>votre thérapeute</u> <u>n'aura pas connaissance de vos réponses avant que la totalité de votre traitement soit</u> <u>terminé</u>.

Si vous avez des questions concernant cette recherche, vous aurez l'occasion de les poser à la personne de la recherche que vous rencontrerez. Vous pourrez également lui demander <u>vos</u> résultats aux différents questionnaires.

Merci encore pour votre collaboration qui nous est très précieuse pour évaluer la qualité de nos prestations et améliorer l'efficacité de nos services.

Yves de Roten, Dr psych., PD Responsable de la recherche