Institute for Clinical Social Work

Clinicians' Perspectives on Neuroscience and Psychoanalysis

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By

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Abstract

This qualitative study is an exploration of the attitudes, tensions, and dynamics towards the relevance of neuroscience to psychoanalytic theory and practice within a small group of ten experienced, psychoanalytic clinicians and educators. Participants were interviewed to explore and develop a picture of their perspectives towards neuroscience's relevance, as well as how they experience and understand the debates around the topic. The study expanded to further explore ideas about the larger philosophical, theoretical, and cultural dynamics within psychoanalysis that shape how clinicians approach ways of knowing and understanding in their psychoanalytic work.

To everyone who taught me to love crazy, and ultimately learn, that it isn't.

All perception is a gamble.

~Edmund Husserl

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Chapter I

Introduction

General Statement of Purpose

As an Interpretive Phenomenological Analysis (Smith, Flowers, Larkin, 2009), this study explored attitudes amongst a small group of ten psychoanalytically trained clinicians and educators towards the relevance of neuroscientific understandings in psychoanalytic theory and practice. In response to the conflicting and seemingly polarized theoretical and clinical positions articulated within the field, this study seeks a deeper understanding of this group's attitudes towards the applicability of neuroscientific findings and an interpretive conclusion of the different belief systems to better understand the nature and dynamics of the conflicts.

Significance of Study for Psychoanalytic Clinical Social Work

Within the field of psychoanalysis, there has been an ongoing and often lively debate as to the place of neuroscientific understanding. Questions typically arise as to whether recent neuroscience findings apply to the work of psychoanalysis, whether they should they be incorporated into theory and practice, or whether they lie outside the purview of psychoanalysis' domain. Psychoanalysis is a theory of mind centered on subjective experience and deciphering the metaphors of personal meaning; is neuroscience's world of data-driven, research-based information about neurobiological function helpful, necessary, or irrelevant to psychoanalysis' hermeneutic world? Should,

as one group of theorists believe, (Palombo 2000b, 2013a, 2013b; Fonagy 2013; Safran 2013; Strenger, 2013; Solms, Turnbull, 2011; Kandel, 2012), psychoanalysis seek to develop a more cohesive theoretical framework in conjunction with neurobiological, body-based aspects that accounts for the subjective experience? Or, as other theorists argue, (Blass, Carmeli, 2007; Hoffman, 2009, 2013; Stern, D.B. 2013; Cushman 2013) is this endeavor counter, irrelevant or potentially dangerous to psychoanalysis? Does psychoanalysis' cornerstone of subjective experience mean that the objectivist realm of neuroscience is on a different road, which while interesting, is not necessary and potentially problematic?

Such questions are currently discussed in national conferences, major psychoanalytic journals, and on the ground level amongst colleagues. Part of the impetus for this study were observations of what could be fiery debates in which words like "threat" and "usurp" can arise.

Addressing neuroscience's applicability means to also challenge epistemological questions that sit at the heart of psychoanalytic theory and practice of what can be known and not known about the human psyche (Palombo, 2000b). A central component of the tensions revolves around positivist versus constructivist ideologies and the incompatibilities of the philosophical underpinnings. Further, such epistemological views have a significant impact on one's clinical approaches (Summers, 2013). While those who seek to utilize and integrate neuroscientific information–and there is a great deal of variety as to how–do not necessarily eschew hermeneutic or constructivist principles, it is here that tensions rise. For those who see neuroscientific understandings as incompatible with psychoanalysis, the concerns center on protecting subjective experience and the

hermeneutic and constructivist positions. In Summers' (2013) recent book *The Psychoanalytic Vision*, he describes contemporary psychoanalysis as uniquely and necessarily grounded in phenomenological beliefs and immersed in the experiencing subject. Describing the importance of a skeptical attitude in psychoanalysis to what can be known, that the beauty of contemporary psychoanalysis' way of knowing is its open-mindedness, he states that "contemporary hermeneutic psychoanalysis is the present-day Socratic icon: asking the questions the interlocutor (read patient) does not ask and may not want to be asked…[and that] an open-minded approach means no theory can foreclose where the inquiry may go" (p. 15). Summers argues that in contrast, the deductivist attitude of a classical approach which places the analyst as the theoretical knower of the patient's experience, is still prevalent in contemporary thinking. In calling for a heuristic approach and breaking free of a deductivist way of knowing, Summers reminds us that this is still very much a contemporary task at hand. It is in the complexity of this epistemological web that neuroscience has gotten caught. Neuroscience, as scientistic, and the enthusiasm for it, can be understood as a vestige of historical attempts to fit psychoanalysis into a natural science, and incapable of being tied into the contemporary psychoanalytic attitude of subjectivity.

Further, within that web of questions, concerns about psychoanalysis' continued relevance are tied to the discussion (Fonagy, 2003, 2013; Solms, Turnbull, 2011; Kandel, 2012). Peter Fonagy (2003) describes psychoanalysis as "an embattled discipline. Some of the most senior leaders of psychoanalysis have asserted that psychoanalysis faces extinction if it continues to isolate itself from important scientific advances in other fields" (p. 219). Eric R. Kandel, a neuropsychiatrist who has written extensively on

psychoanalysis and neuroscience, responds to the questions of biology's relevance to psychoanalysis stating that the issue is "central to the future of psychoanalysis" (Kandel, 2012, p. 505).

Others have held the opposite opinion, stating that psychoanalysis does not require neuroscience for validation, that the concept of quantifying efficacy and promoting psychoanalysis as treatment already runs counter to the psychoanalytic tenets of subjective, phenomenological, and hermeneutic perspectives (Hoffman, 2009; Karlsson, 2010; Stern, D.B., 2013; Cushman, 2013). The New York Psychoanalytical Society and Institute (2010) held a roundtable discussion titled *Psychoanalysis and Neuroscience: Ten Years Later*. One of the participants who opposed a relationship between psychoanalysis and neuroscience, Robert Michels, Editor-in-Chief at the time of the *International Journal for Psychoanalysis,* stated that in terms of neuroscience's relation to psychoanalysis' theoretical or clinical work, it has yet to demonstrate its relevance. He was discouraged by his impression that even psychoanalysts' who want to build a bridge with neuroscience are doing their own “bad science.” "Psychoanalysts," he states, "don't expect to learn anything of value from the neurosciences. . . . Psychoanalysts are typically seeking not to understand something new from neuroscience, but want to simply have neuroscience validate what psychoanalysis already knows" (New York Psychoanalytical Society and Institute, 2010). He also expressed a common concern among opponents of neuroscience (Blass and Carmelli, 2007; Hoffman, 2009; Karlsson, 2010; Ramus, 2013), that neuroscience is not yet far enough along, that there are too many unknowns, to be of any use to psychoanalysis.

As more information continues to be available from the field of neuroscience regarding brain function and its impact on psychological states, the tension has risen between those who see it as needing to take a central position and those who see it as peripheral, unnecessary, or even dangerous.

Statement of the Problem and Specific Objectives

Problem formulation.

At one level, the study is looking at the differences in theoretical and clinical positions, and the attitudes and belief systems, that go along with those positions. At another level, the strong emotions are overtly apparent within psychoanalytic discourse around this topic. While the strong emotions themselves were not understood as the problem to investigate, a limited discourse or understanding of the emotionality and the dynamics phenomenologically was missing. The intensity itself has been a curious dynamic. From personal observation, the debates and ways the topic was discussed appeared to reflect a moment in which one can feel that one's very basic psychoanalytic beliefs and professional identity are being questioned.

This study was not premised on the idea that a reconciliation of opposing views is required nor that the emotionality itself was problematic. It sought to look at how to make sense of the intensity, as the outcomes have appeared to be more fracturing than collaborative. One thing that was apparent in the researcher’s observations of collegial conversations, conference presentations, journal articles, and faculty panel discussions: it is a topic that typically pushes one to take a side.

There have been few investigations into the dynamics and meanings of the controversy and the debates themselves. Some have suggested a few hypotheses, typically stemming from personal experience and belief, but there is little investigative research regarding the larger picture of this quandary. "Psychoanalysts may fancy that their discipline is independent of other mind sciences, but the reality is that everyone makes implicit assumptions about the mind," writes, Fonagy (2003, p. 227). If Fonagy's assumption is correct, there are more stories to investigate that lead us back to the questions which originated from Descartes' mind-body dualism. Do psychoanalytic practitioners conceptualize the mind as connected to the physical, bodily experience? And if so, how? Or is the mind a separate, intellectual state above and separate from the world of the physical?

Objectives.

The study's objective was to explore, at an individualized, subjective level, participant attitudes towards neuroscience's relevance to better understand the tensions. It sought to make sense of a complicated dynamic that was both historical and contemporary, and consider what the trends those attitudes imply for the current state and potential future of psychoanalysis.

Problem History

The challenges inherent in the mind-body Cartesian dualism has had a long and complicated history in psychoanalysis. From the earliest beginnings of psychoanalysis, Freud sought to find connections between the mind and brain function. On the biological

end, he formulated a paradigm that emphasized the structural system of the mind (id, ego, superego), powered by underlying, biological drives. In contrast, yet with equal emphasis, he also formulated a clinical process that emphasized the descriptive, metaphorical importance of deciphering the dynamic unconscious and dreamwork. Strenger writes that “Freud's enduring legacy was a synthesis of a fascination with the irrational mind in German Romanticism with the biological sciences" (Strenger, 2013, p. 203).

The most overt example of the focus on biological function *A Project for a Scientific Psychology* (written in 1895 though not published until 1950), which was an attempt to correlate defenses and psychic responses with neuronal activity. He was specifically looking for an actual mechanism to explain neuronal response to affective stimulus. Freud was aware that the ideas were still rudimentary but was even more concerned about the paradox that such an empirical direction would create for psychoanalysis and whether such ideas would hold up within the natural sciences of his time. He decided not to publish the paper and years later ultimately abandoned most of his ideas to formulate a neurological framework. However, he did not necessarily give up on the idea that the intricate connections between body and mind would someday be more clearly understood (Silverstein, 1985; Solms, Turnbull, 2011). The *Project* instead remained as what Strachey, in his introduction to the paper, called an "invisible ghost, [which] haunts the whole series of Freud's theoretical writings to the very end" (Freud, 1950 [1985], p. 289). In the introduction, Strachey writes that:

> Anyone who examines the bibliographical indexes to the later volumes of the Standard Edition will be surprised to find in every single one of them references,

> and often very many references, back to the Fleiss letters and the to the *Project*. And, as a corollary, he will find in the footnotes to the pages that follow very many references forward to the later volumes of the Standard Edition. This circumstance is an expression of the remarkable truth that the *Project*, in spite of being ostensibly a neurological document, contains within itself the nucleus of a great part of Freud's later psychological theories. In this respect its discovery was not only of historical interest; it threw light for the first time on some of the more obscure of Freud's fundamental hypotheses. (Strachey, 1954, p. 289)

Freud struggled with the seeming incompatible roles of science and "intuition" (i.e., meaning). In 1911, Freud wrote a letter to Carl Jung stating

> I can see from the difficulties I encounter in this work that I was not cut out for inductive investigation, that my whole make-up is intuitive, and that in setting out to establish the purely empirical science of psychoanalysis I subjected myself to an extraordinary discipline (Freud, 1911, p. 272).

While psychoanalysis' primary paradigm eventually evolved towards more hermeneutic paradigms, as exemplified in the psychoanalysis of dreams and metaphors, and there was an increasing focus on interpersonal dynamics, subjective experience, and attention to affective meanings of self and other, there were still some theorists post-Freud who considered body-based perspectives. While not shunned, these have been typically peripheral to intrapsychic or interpersonal discourse. Winnicott's (1949) ideas of soma and psyche, for example, were given some brief consideration but never took off beyond general mention until more recently as neuroscience has become a focus of discourse. Similarly, Piaget's (1969) cognitive and developmental theories had an

amicable relationship with psychoanalysis, but for the most part Piaget considered his interest in psychoanalysis academic and was not considered to be a psychoanalytic theorist (Litowitz, 1998).

A more recent parallel of the mind-body debate occurred in the 1980s as the use of psychiatric medications became more effective and available. Medication, for example, had long been viewed as a lesser form of treatment that could interfere with psychoanalytic process. Over the last 20 years it has come to be seen as a supportive adjunct to treatment even though there are variations conceptualizing its role and function in addressing symptoms (Swoiskin, 2001). While medication has become an example of how some biological aspects have become more acceptable, it is still considered a sideline aspect of treatment.

This study did not proceed with the intention to extensively explore psychoanalysis' history with biology and the body, but that general topic is addressed in the literature review to cover main points in the literature. The history of psychoanalysis and the body is important to this study as it is part of the cultural and theoretical context for the study's questions. The impact of that history was also needed in the analysis of the data as related to current, though long-standing, tensions and philosophical quandaries, heightened by the influx of neurodevelopmental data over the last two decades.

Current controversies embedded in the problem.

The controversies themselves are the subject of this study and have tendrils into other controversies. One is at the level of the philosophical and theoretical paradigms. The neuroscience debate elicits larger questions as to positivist/empirical paradigms

versus constructivist/hermeneutic directions for psychoanalysis, which, harkening back to psychoanalysis' early development, have again become a topmost controversy. Questions about whether neuroscience is necessary for psychoanalysis to remain relevant both theoretically and clinically were part of what spurred the investigation. This section will briefly review the primary controversies and questions that prompted this study.

Neuroscience as a provider of relevance and validity is a primary theme in the impetus to include it in psychoanalytic thinking. Theorists such as Fonagy (2003), Kandel (2012), Le Doux (1999), Schore (1994), Solms (2000), and Solms and Turnbull (2012) believe that neuroscience is not only essential to furthering psychoanalytic practice, but that it also necessarily validates psychoanalytic principles of the mind. According to this group, not only are psychoanalytic concepts capable of being proved by neuroscience, but neuroscience can also provide data to validate psychoanalysis' efficacy as a mode of treatment. Those in support of this perspective see the discussion of psychoanalytic theory as ultimately inseparable from neuroscience. Mark Leffert writes in his book, *Contemporary Psychoanalytic Foundations: Postmodernism, Complexity, and Neuroscience*, that it is impossible to discuss psychoanalysis without also addressing the relevant advances in neuroscience. "Any consideration of issues pertaining to memory, consciousness, and unconsciousness in isolation from their physical and systemic correlates is not only crippled from the start but also unsustainable" (Leffert, 2010, p. 89). This perspective implies that the cat is already out of the bag and that neuroscience should be included if psychoanalysis is to keep from becoming antiquated.

The other side of the argument is that the need to empirically validate psychoanalysis in the first place is already a problematic quest. To attempt to validate and

prove efficacy, and neuroscience being one venue for that, places psychoanalysis in a positivistic, empirical paradigm that privileges scientism over individual experience and the hermeneutic aspects of the psychoanalytic process (Hoffman, 2009, 2013; D.B. Stern, 2013). Hoffman (2009, 2013) argues that such an empirical belief system dismisses the necessary ambiguity in the analytic process and necessary view of the patient as a free agent with unique, subjective experience. The very idea of psychoanalysis as treatment needs to be questioned. Hoffman (2009, 2013) raises the concern that the analyst's reliance on professional experience and empirical evidence, as a form of Schon's (1983) technical rationality, leads to constricted perceptions of "what *has to be*: how the patient *has to be* organized given this or that history or trauma" (Hoffman, 2009, p. 1054). Knowing itself comes into question: how we know what we know, what can be determined, and how does one come to professional decisions are all positions worthy of critique; these are positions, Hoffman argues, which must be challenged beyond privileging empirical evidence. He connects the eagerness to incorporate neuroscience, particularly as a way to prove psychoanalysis' validity and the broader interest from the medical world for empirically based therapies, as part of an illusion that there are clear-cut, empirically-based courses of action, and eschews the notion that psychoanalysis needs empirical evidence, and challenging the notions of efficacy and validity as even appropriate for psychoanalysis.

Further, there are mixed messages within the psychoanalytic community as to neuroscience's actual clinical usage in the treatment process. From personal experience amongst colleagues, there are those who are eager to incorporate neuroscientific information but find there is a wide array of ideas as to its application. Even from those

who are interested in incorporating neuroscientific ideas, there is also a notable ambivalence about its use. There is both an interest and an equally communicated skepticism. Neuroscience continues to have a notable level of popularity, particularly around topics of trauma, attachment, and memory. Yet, it is uncommon for clinicians to discuss cases and clinical process in terms of biological aspects, even amongst supporters. It has been observed by the researcher that a discussion of possible neurological or physical might be interpreted by other professionals as being defensive or responding to countertransference by focusing on biology rather than meaningful, interpersonal dynamics. There has been an observed confusion as to how neuroscientific information would be relevant. Allen Francis (2016), Director of the NIMH wrote in *Psychology Today* that "the neuroscience research has been fascinating, but so far has had zero impact on clinical practice and has not improved the life of a single patient. In contrast, the psychotherapy research it displaced has been helpful to millions of people."

There is limited literature in favor of building bridges between neuroscience and psychoanalysis; it tends to be primarily theoretical and less about clinical application. Again, through personal observation of the discourse when colleagues discuss clinical cases, the psychoanalytic psyche (a focus on early intrapsychic organization, interpersonal history, defensive structure, metaphor of affective meanings, relational dynamics, etc.) is the foremost focus and biology is rarely seen as interrelated. A dualistic dynamic of mind *or* body is embedded in these perspectives, that neurobiology is something separate from the domain of psychoanalysis and the study of the mind.

Integrating neuroscientific information into clinical paradigms is relatively limited. Theoretical models that consider those applications are also, relative to the big

picture of psychoanalysis, fairly new. Current examples include but are not necessarily limited to, the work of neuropsychoanalysis (Solms, Turnbull, 2012), Greenspan's DIR model (2007), areas of attachment as discussed by Fonagy (2003), the writings of Kandel (2012), Le Doux (1999), Schore (1994), and Palombo's CAS model (2013a, 2013b). Aside from Palombo (2000, 2013a, 2013b, 2017), however, none of those theoretical perspectives or clinical models address underlying philosophical quandaries.

A discussion of the different models will be included in the literature review. It is noted here that recent clinical theorists from all branches of contemporary psychoanalysis have discussed and addressed clinical applicability, but it is both narrow and on the sidelines of the main discourse. Neuropsychoanalysis, for example, has recently begun an emphasis to consider clinical applications, but that overt effort is new at the time of this writing. In an informal, cursory review of major U.S. psychoanalytic training institutes syllabi, these topics were minorly included, often as an elective or workshop. A similar observation was noted when informally reviewing the syllabi and course offerings at major U.S. psychoanalytic training institutes. Out of nine programs reviewed (the program review was limited to those that had online curriculum descriptions), three did not offer any courses related to neuroscience and the remaining six offered one course or a mini-course. Some offered workshops and continuing education seminars, but they were rare and infrequent.

In connection with the challenges in clinical applicability, it was also noted that another aspect of this controversy is the impact that each perspective has specifically on clinical formulation. As an example, current papers discussing clinical treatment of children diagnosed with ADD/ADHD have significantly different views on etiology and

treatment process depending on their inclusion of neurodevelopmental aspects versus a primary focus on intrapsychic aspects (Mollon, 2008; Cione, Coleburn, Fertuck, Fraenkel, 2011; Gopin, Healey, 2011). One paper discusses the self-object function as provided or not provided by the parents (Mollon, 2008), and another considers a relational approach (Cione, Coleburn, Fertuck, Fraenkel, 2011), for example. Both place primary emphasis on the role of the interpersonal and intrapsychic. Both discussions also revolve around early parent-child relationships in terms of what parents have done or not done, provided or not provided. Conversely, a clinical approach that emphasizes neurocognitive determinants within a developmental framework (Gopin, Healy, 2011) puts very little emphasis on interpersonal and intrapsychic factors.

Palombo (2011, 2017) and Zabarenko (2011) noted that perspectives which consider both intrapsychic and neurodevelopmental aspects are rare. Each approach, whether weighted more in an intrapsychic, neurobiological, or integrated position, has significant implications for the direction of clinical process, particularly how the meanings of the clinical process is understood. These variations can represent differences around core aspects of psychoanalysis' position as to how the psyche is conceptualized and, more globally, perspectives on the role of psychoanalysis in mental health.

In summary, while there continues to be a growing amount of neuroscientific information and an increase in interest, there are concurrently ambivalent or opposing perspectives towards its usefulness, each reflecting significant differences clinically, theoretically, and philosophically as to what psychoanalysis actually does and leaving the path for neuroscience and psychoanalysis unclear.

Conceptual Position

While the attitudes towards neuroscience was the large focus of the study, the interrelated dynamics and tensions of the debate, particularly as potentially illuminating facets of current psychoanalytic culture, was best explored at a close level to understand the *whats* and *whys* of the tension. To investigate both latent and manifest psychoanalytic attitudes toward neuroscience, the study therefore focused on the subjective sensibilities of the participants. From that level, the study sought to understand how those attitudes and beliefs may contribute to the tensions and then consider possible implications of those attitudes on the current picture and possible direction of psychoanalytic thought.

Accordingly, this study was a hermeneutic and phenomenological endeavor, framed within the assumptions that deciphering the metaphors of language to uncover intentions and meanings that may not be apparent to the participant will provide a path to making deeper sense of a phenomenon (Smith, Flowers, Larkin, 2009). This study utilized and attended to important hermeneutic conceptual ideas such as Schleiermacher's emphasis on the intersubjective dimension of a phenomenological study (Schleiermacher, 1998), Heidegger's position that phenomenology is a discipline of bringing the hidden concealed meanings to light (Heidegger, 1962), and Gadamer's emphasis on the impact of history, tradition, and the timing of the interpretation on the analysis (Gadamer, 1975).

Literature Overview

As regards to the controversies, the primary areas of focus in the literature are the philosophical and epistemological arguments to either include or exclude neuroscientific information. As previously noted, the articulated arguments for one or the other position

ultimately center on whether psychoanalysis should, or how, consider positivistic findings within a hermeneutic discipline. Theorists have argued for risks in doing so (Hoffman, 2009; Karlsson, 2010; Stern, D.B., 2013; Cushman, 2013) or conversely, theoretical and clinical approaches that provide room for bio-psycho-social perspectives (Greenspan, 2007; Tiecholz, 2009; Palombo 2013a, 2013b, 2017). Empirical research is a related arena of corresponding controversy. Some feel that psychoanalysis should not take up or integrate empirical research (Hoffman, 2009, 2013; Stern, D.B., 2013; Cushman, 2013), while others advocate for psychoanalysis to utilize empirical information as an opportunity to validate and prove the technique (Solms, Turnbull, 2011; Kandel 2012).

As regards to attitudes and perspectives on the applicability of neurobiological findings within clinical practice, there is a large and uneven scope of ideas. These topics are typically centered on theory and treatment considerations related to attachment, memory, trauma, developmental disorders, and concepts of embodiment. What was most notable about this area is the general lack of synthesis and epistemological grounding. Instead, topics related to neurodevelopmental or biological perspectives vary widely and revolve around a number of seemingly un-integrated areas.

The history of psychoanalysis and the body was also relevant literature to this study. The concept of the body is large and wieldy in scope. It can refer to physicality of the body or to symbolic representations. It is also a term that is separate from, though related to, neuroscience. Effort will be made as best as possible to clarify the ways that the term body is used and referred to as similar or different from neuroscience. Frequently, literature on this topic includes a discussion of Freud's early perspectives as a

neurologist in formulating a mind-body theory, as well as references to the shifts in perspectives on the mind-body debate throughout the evolution of psychoanalytic thought. Therefore, the literature review provides a concise summary of where the body has been placed theoretically within main branches of psychoanalysis. This was also included to provide an overview of the historical context within which this debate is situated and the context from which it has evolved.

One primary area in which the literature was noted as deficient is in understanding the nature of the debate. As previously noted, there has been little written about the debate itself. Elisha (2011) wrote a review of psychoanalytic theories as they pertain to the body and proposed some ideas as to the impact of cultural beliefs on the place of the body through the evolution of psychoanalysis. However, while a helpful review for this study, her book is primarily an analysis of theoretical literature and is not looking at the ground level of clinicians' perspectives. Ideas or hypotheses put forth about the conflicts are more anecdotal and have not been approached with systematic research, either qualitative or quantitative. This gap, as well as the literature's epistemological tensions and discrepancies, was one of the main areas of impetus for taking on this investigation.

Questions Explored

As a hermeneutic and phenomenologically based study, no formal prior hypothesis was developed for this study. However, questions pertaining to the topic shaped the development of this study. Again, the primary focus of the study was to explore the attitudes amongst those who were psychoanalytic clinicians and educators

towards the relevance of neuroscience. The larger sub-category of this question was to explore the nature of the polarizing dynamics. The original, main research questions are listed below. Ultimately, the framing of those topics in those original questions evolved slightly through the process of study, but each are also ultimately addressed in the data and the conclusions. The original questions were:

1. What are attitudes amongst experienced psychoanalytic clinicians and educators towards the relevance of neuroscience to psychoanalysis?
2. Why does the seemingly polarized quality of the topic continue?
3. What is the opposition towards neuroscience and does it stem from a fear of medicalization?
4. Where does psychoanalysis currently place the body (particularly in the sense of neurobiology)?
5. Do differences in discipline-specific language create barriers?
6. Are there aspects of this topic that challenge professional identity?

In summary, the purpose of this study was to investigate perspectives and attitudes amongst psychoanalytic clinicians towards the use of neuroscience. There is a particular interest in doing this study to understand the tensions, potential resistances, and differing beliefs. Psychoanalytic beliefs towards the relevance of neuroscience carry with it a reflection of different epistemological perspectives and therefore, this study seeks, in part, to understand at the ground level the various directions of this topic in psychoanalysis. Utilizing interviews with experienced psychoanalytic clinicians who both teach in psychoanalytic training programs as well as have held leadership positions in respective organizations, the research process was designed to search for not only

assumptive claims and beliefs about neuroscience, but to understand the dynamics that are churned up around those beliefs. By examining how participants, as clinicians and teachers of psychoanalysis, are interpreting this debate and responding emotionally to the various positions, it was hoped that the investigation would shed light on the controversies themselves.

Theoretical and Operational Definitions of Major Concepts

Neuroscience: While on one hand this definition seems straightforward, this concept should be defined clearly as it can become a catch-all term that within psychoanalysis can mean many things empirical or physical. This study considers neuroscience to refer to the study of the nervous system, particularly the structure and function of the brain. It concerns the biology of the mind, most relevantly the idea that brain function underlies perception, action, emotion, and learning (Kandel, 2012b).

Hermeneutics: This term is a cornerstone for psychoanalysis and refers to the study of interpretation. Typically, hermeneutics refers to interpretation of text. For psychoanalysis, it refers to the interpretation of personal narrative and experience that arises within the psychoanalytic process. It emphasizes subjective and phenomenological experience as opposed to scientifically derived data. Gadamer's contemporary view that truth is derived from mastering our own experience and therefore not fixed, emphasizes understanding the nature of understanding itself, yet also recognizing that understanding itself is interpretation (Schwandt, 2000).

Empiricism: Empirical paradigms are the epistemological framework emphasizing experienced based knowledge, including sensory knowledge, that is observable and derived from scientific methods and inductive reasoning (Markie, 2015).

Constructivism: An epistemological view that knowledge is constructed, inseparable from social experiences, conventions, and individual perceptions. It is opposite to a positivistic view that knowledge is derived through the scientific method and stretches beyond philosophical hermeneutics in stating that there is no one true interpretation (Schwandt, 2000).

Positivism: A view that true knowledge is derived from scientific methods and implies that there is a way things really are. It is typically associated with the natural sciences and focuses on logic and non-subjective means of attaining knowledge. Therefore, it maintains a belief that there is one valid methodology (Guba, 1990).

Phenomenology: A belief that the study of how we experience is important in understanding knowledge and reality. A belief that knowledge, or reality, is based on individual perceptions and that the world is understood through human consciousness, not anything separate from that (Smith, 2013).

Statement of Assumptions

It was assumed that clinicians would be interested to discuss this topic and participate in surveys and interviews honestly. The researcher's personal experience has shown that this topic easily engages clinicians and many have very clear, emotionally charged, and complex opinions. Efforts were made in designing the interview to encourage a safe and honest dialogue that allowed for a sharing of complex perspectives.

Epistemological Foundation of Project

The nature of the query is to elucidate beliefs and dynamics that may not be overtly apparent or conscious and was intentionally positioned as a hermeneutic study. In order to understand the nature of the dynamics around neuroscientific relevance in psychoanalysis, and to explore what the dynamics and beliefs can tell us about the state of psychoanalysis, it was necessary to use a hermeneutically-based design that allows for an analysis of rich text to elucidate underlying meanings, beliefs, and dynamics. It is a study that also sought to understand subjective experience and meaning and is therefore a phenomenological study.

Specifically utilizing a hermeneutically, phenomenologically derived design, the Interpretive Phenomenological Analysis, provided a structure for integration of these important points and goals: that 1) there are latent meanings to understand beyond overtly stated beliefs and attitudes, 2) that one must attend to preconceptions and biases as the researcher in order to interpret within the hermeneutic paradigm of understanding, to attend to the impact of the before and after and the impact of the whole on the parts and the parts upon the whole, and 3) in interpreting, the interpreter both impacts and is impacted by the data.

Foregrounding

This section is included as it was written for the initial proposal prior to the start of data collection. It is kept in this form to note the attitude entering the research, but also because the evolution of thinking on bias will be commented on in the conclusions of

Chapter V. The original statement is as follows. In keeping with the closeness and subjectivity of a hermeneutic study, it is also kept in its original first-person perspective.

This study follows Gadamer's (2004) suggestion to use foregrounding as a tool to elucidate the prejudice, assumptions, and history of the researcher and make way for a less encumbered interaction with the text. As a study that is looking to investigate belief systems, this section is part of an important tool to acknowledge the researcher's positions in order to avoid misinterpretations and misunderstandings of others.

The research is approached with the belief that the outcome will be an understanding, as Gadamer (2004) believes, which is placed in the context of history: my own, that of the participants, and the topic itself. It follows the idea that understanding comes from an iterative process, the evolving interplay between what the researcher brings to the text and what the text brings to the researcher. And further, as a hermeneutic study, there is a circular process of understanding and determining meaning through attention to the interrelation of the parts to the whole and the whole to the parts (Smith, Flowers, and Larkin, 2009, pp. 27-28).

Therefore, in this hermeneutic exploration, I acknowledge my own belief systems, which while I hold dearly, I also hold with a component of skepticism and question. In other words, I approach my own belief systems similarly to the way this research is approached: that it is important to continually assess and question one's own beliefs, to not assume there is one pre-determined way of knowing that must be achieved, that subjective experience shapes and impacts one's ways of knowing, and that those subjective influencers are not always apparent to oneself. The following briefly describes my history and positions on this topic.

In the field of psychoanalysis, our work is based on things that we believe or don't believe about human development, human interaction, the meanings of interpersonal experiences, and the necessities of what occurs, or doesn't occur, in early relationships and those encountered over a lifetime. The differences in those understandings among psychoanalytic theorists and clinicians vary widely and make for lively debates about how to approach the detective work of making sense of human experience. This is a long way to say that at the heart of psychoanalysis' neuroscience debate there are obviously differing philosophical belief systems in which the emotionality surrounding these beliefs suggests there is value in understanding more beyond the articulated. I am interested in a clearer understanding of the meanings that exist behind the scenes of those beliefs. It is an endeavor that utilizes Schleiermacher's (1998) ideas of the hermeneutic investigation as exploring the intricate interplay of the content and the psychological, the meanings neither purely objective nor subjective.

The topic of this study is one that has interested me for a long time. I came into my PhD program with a certain set of beliefs and understandings that were challenged and expanded. Having studied psychoanalysis and having been a psychoanalytic/psychodynamic clinician for many years, I naively entered into the world of being a student again thinking that while there were things to learn, the general foundation of my knowledge and understanding of my field was near complete. Of course, that was not true. My beliefs and understandings were challenged and ultimately strengthened in significant and deeper ways than I could have anticipated. I mention this because my own process has a parallel to this study: a look at the positions one takes, the development of different beliefs, the reactions to different or opposing ideas, and what

one does as a professional with those challenges and differences. I enter into this study knowing that once again, I will learn that there is more to know about what I do not know, but also with an interest in understanding how others in my field have come to their belief systems, how they have changed or shifted, and what that process has been like.

I have strong beliefs that neuroscience is relevant to psychoanalysis, but primarily when it is used under the umbrella of clarifying subjective experience. One of the many theorists that made a significant impact on my thinking during my PhD program was Husserl and the applicability of phenomenology not only to psychoanalysis, but to this study. I stand firmly in the belief that neuroscience can help us understand the experience of, that it provides information to expand our empathic understanding, and ironically support a breaking free of the locked in beliefs and perceptions that a clinician can fall prey to, and paradoxically similar to the post-modern and deconstructive aspects that Summers (2015), Hoffman (2009) and Symington (1983) discuss. Similarly, the importance of social constructivism on experience and perception have also shaped my interest and thinking in considering cultural and inter-relational contexts, their impact on external and internal meanings, and the necessity of prioritizing subjective experience. Ultimately, having begun to learn more about the epistemological underpinnings of this debate, I have come to a point of seeing myself philosophically in the contradictions of the middle.

I do have a particular closeness to this topic and I have professionally walked amongst the fires of both sides of this debate. At different points over the trajectory of my career, I have held significantly opposing views. I began my career at the University of

Chicago, the Orthogenic School, and under the advisement of Bert Cohler, PhD. I stood firmly in an admittedly dramatic skepticism and wariness towards other non-psychoanalytic, mental health professions. I didn't believe that non-psychoanalytic professionals could offer anything relevant to my psychoanalytic understanding. Psychiatric medication, neuropsychological testing, and a long list of diagnostic categories, for instance, seemed irrelevant, and potentially damaging, because I didn't see how they could address the depth of experience and insight that psychoanalysis offered. Later in my career, I was nudged by colleagues who were beginning to work more closely with professionals from different disciplines (occupational therapists, speech and language therapists, educational specialists, neuropsychologists, psychiatrists) and in testing out that direction, my ways of thinking were challenged. My views shifted to include looking at how other areas of development and perception (language, sensory-motor, and cognitive systems, for example) impacted the organization of the psyche and the experience of relationships. It shifted paradigms dramatically in the way I saw myself in the clinical work, but more importantly, without having to leave my psychoanalytic framework behind. Developing ways to understand and create bridges between the two worlds has been a central and evolving part of the last half of my professional life.

Therefore, I also acknowledge that this may make the underlying question of this study actually seem like I am really asking "why doesn't everyone in the field believe what I believe?" It is a thought that certainly I have had. I am attached to my beliefs. I like them. But it is not my intention to compare others' perceptions to my own or make the process one of ultimately convincing others; I state this because it is a real response and position that I can have and has to be understood and acknowledged in the study. I

expect that I will be humbled and surprised by what I find, that my advisors will guide me with critique or questions in my interviewing and analysis, and that there will be an ongoing need to analyze and distinguish my own beliefs in this process. At the same time, I understand the elements of my own history and bias to be a part of the process to finding understanding. Gadamer (2004) discusses the inevitability of the investigator's subjectivity as part of the process of getting close to the data and the dialectic tension between what is familiar and unfamiliar. In being close and immersed in the query, I will not be free of pre-existing understandings and there will be positions not entirely in conscious awareness. Therefore, this foregrounding is provided, as are other measures described in the Methodology section, to guard against researcher bias and prejudice.

Chapter II

Literature Review

The research question that was explored is wide in scope and was intended to cast a big net around the number of inter-related theoretical, philosophical, and epistemological aspects to this topic. Therefore, the literature review will provide basic summaries of the differing or related perspectives and cover these topics less from a funneled approach, but instead group them into four overarching categories. The first is a brief history of psychoanalytic views on the body and the ways physical aspects of the self have been approached. Because the discourse surrounding neuroscience in psychoanalysis also has connections to a larger epistemological debate -- positivistic or constructivistic directions -- this first section will also provide a brief consideration of where different psychoanalytic perspectives fall in terms of their epistemological underpinnings. This section in no way covers the entire history or intricate perspectives within each psychoanalytic branch. Instead, this section will briefly cover notable voices or basic theoretical tenets of each branch in order to give a flavor of the thinking from each branch.

The second and third sections cover the current discourse on the use of neuroscience within psychoanalysis, both the positions in support, including clinical applications, and the positions are either against or which question its relevance. A fourth section will be a review of the small, though pertinent, literature that proposes or suggests hypothesis about the dynamics of the debate itself.

Literature was selected based on works that are considered major works on the topic or, in the case of lesser known works, were selected for either their relevance to the topic or having been noted and referenced by authors of major works. Searches for articles relevant to the topic were done primarily on PEP for psychoanalytic specific literature and books were selected based on their relevance to the topic. The list was also supported by faculty with expertise in this topic area.

Historical Perspectives from Psychoanalysis Regarding the Place of the Body

While this study explored current attitudes towards neuroscience in psychoanalysis, the topic has roots in the long-standing mind-body debate since the inception of psychoanalysis. Does psychoanalysis still retain a Cartesian mind-body dualism and further, how are differing psychoanalytic theoretical paradigms approaching positivist and constructivist tensions? Therefore, a brief overview of the historical perspectives towards the body and the mind, as well as positivist or constructivist leanings, within the main psychoanalytic branches are included. While the history of psychoanalysis' positions on the physical, bodily aspects of human experience is a wide topic and worthy of its own study, the review for this study will focus on providing basic summaries and general perspectives. It is also important to clarify there are different ways that the term the body is used in either a concrete sense or a symbolic sense. It is also an idea that is different from neuroscience, even though they overlap.

Drive theory.

The place of the body and the epistemological paradox that surrounds that placement throughout Freud's metapsychology is well documented and discussed in psychoanalytic literature (Strachey, 1954; Gedo, Goldberg ,1973; Gill, 1994; Palombo 2000b; Palombo, Bendicsen, Koch, 2009; Solms 1999, 2000; Goldberg, 2015). Freud began with an attempt to understand behavior and experience by developing a model of the mind that was intended to be scientific and empirical, following the worldview of science at the time (Mitchell, Black, 1995, p. 224).

Freud's early tripartite model of the mind (id, ego, superego), as well as the topographical model (unconscious, preconscious, conscious), are both rooted in the biology of primitive, innate drives which must be managed, primarily through repression. While not an endeavor Freud pursued in depth, he considered literal anatomical underpinnings for psychological response and behavior, most clearly documented in the posthumously published "Project for a Scientific Psychology" (Freud, 1950[1895]). Freud had originally written that paper in 1895 but put it aside out of concern that it would not hold up within the empirically oriented science community at that time. However, that did not mean he ended his endeavor. As noted by Strachey (1954) in his introduction to the English translation of the paper (Freud, 1950 [1895]), physiological considerations were present throughout different writings (Freud, 1950 [1895]). In a frequently referenced section of *The Ego and the Id*, Freud writes:

> The ego is first and foremost a bodily ego; it is not merely a surface entity, but is itself the projection of a surface. If we wish to find an anatomical analogy for it we can best identify it with the ‘cortical homunculus’ of the anatomists, which

> stands on its head in the cortex, sticks up its heels, faces backwards and, as we know, has its speech-area on the left-hand side. (Freud, S., 1923, p. 26)

Drives themselves are of the physical. The energetic, genetic, and dynamic models represent an influence by both Cartesian dualism and Newtonian ideas of linear causality (Palombo, 2013b; Ricoeur, 1978; Silverstein, 2011). For Freud, innate, biological, drives were at the core of motivation (Freud, 1923; Ricoeur, 1978; Silverstein, 1985; Chessick 2007). As a model predicated on a Cartesian dualism, Palombo (2013b), in discussing the French philosopher Morin, notes that it is a mode which led to the idea in which "the body is a machine inhabited by an insubstantial soul . . . that left the realm of psychology to struggle with an irreconcilable dualism that continues to haunt psychodynamic theories" (p. 121).

A paradox evolved as Freud moved from a literal, monistic, reductionistic model towards a model that relied on metaphorical interpretation, as represented in *The Interpretation of Dreams* (Freud, 1900). However, the model still retained neurological language (Palombo, Bendicsen, Koch, 2009). This move created an epistemological conflict -- how to reconcile a biological, mechanistic model with one that was also heading down a hermeneutic path?

There are varied opinions as to just how much of a quandary the tensions between Freud's empirical and hermeneutic directions actually are. Silverstein (1985) argues that Freud's position was not as dualistic as some argue. “Freud,” he writes, "saw psychical processes as intentional, not completely determined by mechanical brain processes–but interactive with them" (p. 225). Chessick (2007) saw Freud's epistemological quandary not as irreconcilable but in fact the beginning of a path to integrate or allow for both

hermeneutic and empirical frameworks. Carignani (2012) discusses the linear connection of Freud's model in which physical moves to psyche, somatic expression to psychic representation. Drives are the motivational forces "whereby corporeal demand is transformed into psychic desire" (Carignani, 2012, p. 292). Carignani emphasizes the aspect of Freud's model in which psychic function is dependent on the somatic (Carignani, 2012), but he does not emphasize a hierarchical perspective. However, others have noted that the topographical model's mind-body split between conscious and unconscious then creates a hierarchy of psyche *over* soma, in which body is base and psyche is an evolved state. Consciousness is exiled from the sensual and somatic world (Elisha, 2011, Lichtenstein, 2012). Similarly, Dimen (1998) discusses Harris' (1998) point that in a classical, binary psychoanalytic system "body precedes psyche" (p. 75), indicating a developmental shift of the psyche forward means moving from the lower level of body to the higher level of psyche.

From the literature, it is clear that theorists have argued Freud's position on the body with great variation (Solms, 1999; Chessick, 2007; Silverstein, 1985). As Aron notes, "Freud can easily be quoted to support almost any position" (Aron, 1990, p. 482). The current debates regarding neuroscience have re-invigorated epistemological tensions, particularly between positivist and constructivist positions, often with a return to the discussion of Freud's early models as a starting point, using differing analysis' of Freud's writings to prove or disprove a position (Aron, 1998; Solms, 2000; Schore, 2002; Modell 2007; Pulver, 2003). For instance, many of the articles that are in support of neuroscience frequently include statements that Freud's intention was to find a meeting of the two worlds, implying that Freud would have been thrilled to be a part of the current

neuroscientific discoveries (LeDoux, 1999; Schore, 2002; Solms, Turnbull, 2011; Lichtenstein, 2012; Palombo, 2013a). And while that may have been possible, it is often at this point where those who oppose or caution against neuroscientific understanding position their argument, that mechanistic drive theory and the corresponding topographical and tripartite models are outdated or over simplistic, implying that biological, physical aspects (positivist positions) are no longer for the hermeneutic and constructivist world of contemporary psychoanalysis (Blass and Carmelli, 2007; Hoffman, 2009; Karlsonn, 2010; Cushman, 2013; Stern, D.B., 2013).

Further, incorporating new findings from biological and physical sciences, even when they are used to prove and substantiate basic tenets of Freud's metapsychology, has also had the effect of creating suspicion and skepticism. Ricoeur, for example, cautioned as early as 1978 against a quickness to accept a new theory at that time (Toulmin, 1978), which tied physics to an understanding of drive-related mental functioning and metapsychological components, stating that "the new physicalism must be much more sophisticated than anything that we presently know in order to cope with the inner complexities of the psychoanalytical discoveries" (Ricoeur, 1978, p. 341). It is a statement in which the same sentiment is practically restated word for word in the current literature covering the controversy (Pulver, 2003; Blass and Carmelli, 2007; Hoffman, 2009; Karlsonn 2010).

Object relations.

Melanie Klein added one of the most important shifts in psychoanalytic thinking in moving motivation from drives towards objects (Aron 1998; Palombo, Bendicsen,

Koch 2009; Carignani, 2012). While still maintaining the basic ideas of the drives as motivational, Klein's model of the mind added unconscious phantasy and the mechanisms of introjection and projection that accompany and express the drives (Buckley, 1986, p. xxi-xxiii). The position of the body shifted from the “beast that needed to be tamed” towards a representation of the mind in which the internal world is represented in the physical. Carignani (2012) states:

> A central component in this shift is the passage from the idea–inherited from Freud and his students–of the body as the primary reality towards the idea of the body seen as symbol, right from the beginning represented mentally and for the most part recognized only inasmuch as it is identified with the body of the mother. (p. 299)

From the infant perspective, the psychic elements of phantasy greatly exaggerate and animate the bodily-based (i.e., the breast) experiences. Through development, the interaction with reality shapes and manages the integration, or not, of these early phantasies. The split good and bad objects become integrated more fully into whole object representations in healthy development. Buckley points to Segal's point that while phantasy impacts the perception of reality, reality does not impact unconscious phantasy (Buckley, 1986, p. xvii). Therefore, unconscious phantasy is ever-present, though through a lifetime of development becomes less disruptive or distorting.

Modell (2007) writes in "The Body of Psychoanalysis and the Origin of Fantasy" that, from a Kleinian perspective, “the body is the original source of metaphor, which is then projected outward onto the world (p. 3).” In describing the developmental sadistic response of the infant introjecting and projecting “good” versus “bad” experiences, Klein

(1935) wrote of literal bodily experience as it in turn becomes symbolized as internal meaning. “In the very first months of the baby's existence it has sadistic impulses directed, not only against its mother's breast, but also against the inside of her body: scooping it out, devouring the contents, destroying it by every means which sadism can suggest (p. 145).” A Kleinian model retains the drives (physicality and a positivist perspective), however it is also emphasizing the symbolic representation of the drives and intrapsychic phantasy, maintaining a dualistic perspective of mind and body in which there is again a developmental progression from physicality towards representation.

The later object relations theories of Bion and Winnicott added a shift to the mind-body dualism toward to slightly more unified position in its exploration of inner and outer, or self and other, through centralization of “the other” and dyadic relationships (Elisha, 2011; Carignani, 2012). Winnicot held that psyche and soma were ultimately one in the same for the infant, that in healthy development psyche and soma are not distinguishable during development (Abram, 1996; Carignani, 2012). Winnicott (1954) wrote that the "mind is then no more than a special case of the functioning of the psyche-soma" (p. 244). For example, Winnicott saw the infant's motor development and the impulse to move, reach, and grab as a manifestation of aggression, an internal, somatic motivation that meets with external world (Winnicott, 1958). Carignani (2012) writes that according to Winnicott, there is a developmental shift from soma to psyche that also includes a third step towards psyche-soma integration in which the body must later be re-introduced, that "psyche is born out of the body to which it must subsequently relate again" (p. 306).

Bion's idea of container and contained added a focus and dynamic within the parent-infant dyad in which the parent is the container of the infant's projections that have been fueled by somatic and sensory experiences (Modell, 2007; Elmsdorf, 2007). Elmsdorf describes the parent's containing function as allowing the infant to move from chaotic, sensory, somatic experience towards one that is manageable. Bion and Winnicott postulated that within the experiences of the parent-child dyad, the infant takes in the parents' capacity to contain, and as Elmsdorf (2007) writes, "ultimately the somatic into the thinkable" (p. 82). This aspect of object relations shifts the body as the impetus behind early psychological meaning by adding emphasis on the interpersonal, in which the body is something to be managed, overcome, and integrated *through* the parent-child dyad.

Self psychology.

Heinz Kohut impacted psychoanalytic theory significantly when he placed subjective experience as a central component of his theory (Palombo, Bendicsen, Koch, 2009; Schore, 2009). Such a shift has had a prominent influence in the evolution of psychoanalytic thinking by emphasizing relational, affective transactions within the self-selfobject system of the parent-child dyad, the emergence of self, self-regulating structures, and the therapeutic relationship as key in restoration of the self (Palombo, Bendicsen, Koch, 2009; Schore, 2009). Influenced by phenomenology (Atwood, Stolorow, 1980), Kohut's move from drives to a focus on empathy, affect, and self was revolutionary. The new shift led psychoanalysis towards considering two-person

perspectives, an outgrowth of which are current relational and intersubjective theories (Palombo, 2009).

Kohut's definition of the self includes talents and skills, which are considered natural endowments and are ultimately a bodily component. Kohut (1978) describes that along with the bi-polar aspects of self (grandiose and idealized), the third aspect that makes up the self is an intermediate area exists consisting of "…basic talents and skills that are activated by tension-arc that establishes itself between ambitions and ideals" (p. 413).

However, there is not extensive writing in which Kohut addressed the mind-body dilemma in detail. Schore (2009) writes, for example, that "Kohut was highly ambivalent about the incorporation of scientific data into the core of psychoanalytic self psychology" and primarily sought to create a psychological model (p. 190). This is further reflected in his move away from drives. Stolorow, Atwood, and Orange (1999) point out Kohut's prominence in the transitional move away from dualistic, Cartesian model of inner and outer, from the mind as an isolated "thinking thing" towards one that includes context and relatedness in deciphering the meaning of experiences, and motivation centered on affect instead of drive, stating:

> Kohut was essentially arguing here, much as we did later, that psychoanalytic theory should be a depth psychology of personal experience, because it is only personal experience and its vicissitudes that are accessible to the psychoanalytic method of investigation. Instinctual drive, for example, was to be expunged from psychoanalytic theory and replaced by the subjective experience of drivenness, which, we would add, is an affect state. The shift from drive to affect, one of the

> hallmarks of our intersubjective perspective, is of great theoretical importance, because unlike drives, which originate deep within the interior of an isolated mental apparatus, affectivity is something that from birth onward is regulated, or misregulated, within an ongoing intersubjective system. Thus the shift from drive to affect automatically entails a contextualization of human motivation. However, with the exception of Kohut's (1977) reformulation of the oedipal phase, he did not pursue further this focus on affect. In all three of his books (Kohut, 1971, 1977, 1984), he reverted back to the concept of drives, although he relegated them increasingly to a subordinated role (1999, Stolorow R.D., Atwood G.E., Orange D.M., p. 382).

The body, therefore was relegated to a lesser role theoretically, though Kohut's discussion of self-fragmentation did include some discussion related to the body. Self-fragmentation, for example, he described as a fragmentation of body-self. This is most overt in the Kohut's writing on self-mutilation or body inferiority (Kohut, 1972). In this case, the experience of the body is intrinsically linked to the early achievement of cohesion or fragmentation. Kohut (1972) writes:

> A mother's lack of confirming and approving "mirroring" responses to her child prevents the transformation of the archaic narcissistic cathexis of the child's body-self which normally is achieved with the aid of the increasing selectivity of the mother's admiration and approval. The crude and intense narcissistic cathexis of the grandiose body-self . . . remains thus unaltered and its archaic grandiosity and exhibitionism cannot be integrated with the remainder of the psychic organization which gradually reaches maturity (p. 373).

While Kohut did not formalize a theory of development per se (Palombo, Koch, Bendicson, 2009), this suggests that Kohut saw the child's somatic and psychological experience as both part of the sense of self. Susske (1997), described that Kohut's idea of integration considered a fusion of both somatic and bodily experiences with psychological functions. Nonetheless, Kohut did not focus his theoretical discussions on biological, bodily aspects, nor clarified a developmental model (Palombo, Bendicsen, Koch, 2009, Schore, 2009).

Self psychology as a clinical theory that focuses on narrative, empathy, and subjective experience, indicates a significant shift away from positivist, drive-oriented theories ideas towards a hermeneutic theory. The self as a structure within the mind "reflects one's experiences and encompasses the agencies of the mind" (Palombo, Bendicsen, Koch, 2009. p. 263). Since Kohut, others have taken up the building of a bridge between self psychology's focus on subjective experience with neurobiological understandings (Basch, 1976; Palombo, 1996, 2000a; Eldridge, 1996). Basch (1976), for instance, discussed the potential implication of language and sensorimotor development on clinical formulation as well as neurological factors that impact individual perception. Eldridge (1996) discussed a clinical example that looks at the impact of sensorimotor perception on the development of self. Palombo (2000a) has explored the impact of learning disabilities on formation of the self, emphasizing the necessity to undo the distinction between etiology and dynamics, another form of the mind-body split. Palombo (2000a) writes, "we cannot separate etiological factors from the dynamics. The two are inextricably entwined. The resulting meanings that people extract from their experiences are a result of the two sets of factors" (p. 330). Theoretically, this has been a

difficult task to organize epistemologically. Later in his writing, Palombo (2013(a), 2013(b), 2017) became one of the few who has offered a new framework for psychoanalysis (utilizing self psychology and nonlinear systems theory) that can theoretically platform a frame for understanding the experience and meanings of a patient via the seemingly contradictory perspectives of interpersonal and intrapsychic with biological perspectives.

Relational.

Relational perspectives, as led by Mitchell and Greenberg (1988), sought to integrate various branches of psychoanalytic thought and place the relational experience (the analytic relationship and its interactional complexities) as central in its theory. Mitchell and Greenberg were also moving away from drive-oriented language and situating their theory within a constructivist paradigm. However, by 1996, Mitchell laid out a goal for relational theorists to reconsider newer concepts in light of Freud's metapsychology, notably where the body and constitution are concerned. Mitchell (1996) writes:

> In terms of theory, there is a need for relational authors to address more directly those domains of experience with which classical Freudian theory was most centrally concerned: sexuality, aggression, the body, constitution. Many relational authors have emphasized motivational systems other than sexuality and aggression, and experiential factors as alternative to the body and constitutional contributions. What seems important in the next wave of relational contributions is more attention to precisely those areas that were emphasized by traditional

> authors, so that those factors may be brought into fuller integration with established relational themes. (p. 2)

In calling out for reconsideration of these early ideas, Mitchell (1996) conversely saw the relational movement as eclipsing early positivist foundations. In this way, the body in relational theory becomes symbolic and psychological -- meanings are subjectively constructed, placing relational attitudes towards the body in a constructivist frame.

Aron, Anderson, and Harris (1998) responded to Greenberg and Mitchell's call to attend to the body and somatic experience in *Relational Perspectives on the Body*. Aron sees the body as the ultimate core of psychoanalysis and that biological drives are ultimately the final reduction of any psychological need. However, he agrees with Greenberg in seeing drives conceptualized as *psychological* motivations instead of biological ones. In this way, Aron and Greenberg are suggesting that instead of seeing bodily experiences as central, it is the experience of the body that is central. However, Aron differs in emphasizing the metaphorical aspect as primary, that it is the meaning derived that is the priority, separating the actual impact of the physical. In citing Gill, Aron suggests that a theory must distinguish between the body as such and the body in terms of its meanings (Aron, 1998, p. xxii). Aron describes the relational perspective in terms of its contrast to a classical position, that in a classical view, the tendency is to "reduce the metaphorical to the concrete bodily part or function versus the seeing the opportunity to interpret the conceptions about the body as metaphor" (Aron, 1998, xxiii). Aron notes that on one hand, bodily events are seen as secondary, *as derivative* of relational, interpersonal experiences, such as intimacy. Yet on the other hand, it is affect

recognition–a bodily experience–that is crucial in developing full self-awareness. Aron shifts the process to affect recognition, not internal conflict, as what needs to be brought to light (Aron, 1998).

Harris, describing psychoanalysis as a theory of mind-body integration in which the body has been sequestered and lost in clinical thinking, believes that relational theories must "retrieve the body from classical theory" (Harris, 1998, p. 39). However, she also cautions against retrieving the myth equating "deepness or innerness with authenticity or 'realness' of identity. The usual metaphor of construction of body as 'raw,' mind as 'cooked,' maintains the very body-mind split Freud's theorizing of ego was designed to address" (Harris, 1998, p. 45). Similar to Palombo (2013(a), 2013(b)), though from a relational perspective, Harris also calls for a unifying framework that incorporates a general systems theory in order to allow for a multidimensional perspective.

Within a consideration of postmodernism and feminism, Dimen discusses the body as an agent of enactment, that in the body's contribution to the interpersonal experience, the body articulates the unconscious. Dimen states that "bodies, in the new relational view, abrogate many binaries" (1998, p. 73). Similar to Harris, she moves the body's position from primary motivator or driver to a non-hierarchical component of a unique fabric of meaning. "Bodies do not make minds, nor minds, bodies: rather they are intersubjectively emergent, a density of origin with fascinating clinical ramifications" (Dimen, 1998, p. 68).

Aron, Dimen, and Harris have in common a postmodern interest in challenging the concept of mind over body and deconstructing the idea of real as it pertains to culturally shaped language and its impact on internalized meaning, unconscious

determinism, and the beliefs imbedded in developmental models that emphasize vertical, linear assent. Dimen, for example, considers the cultural system reflected in psychoanalysis' body, one that is an objective, scientific body and stands on a deterministic platform. Dimen (1998) calls for "living without determinism by sustaining relational tension [which is] the psychoanalytic challenge par excellence, and it is, oddly, exemplified in the clinical body" (p. 75). The body according to Dimen should be seen as multi-dimensional: an equal, integral component of relational experience and meaning maker. At the same time, she maintains that socially constructed meanings have also made the body. Similarly, Lichtenstein further emphasizes the role of language as symbolic of social beliefs in the role of the body meanings. "Although the processes by which the embodied self comes to create and be created by language may seem like a remote concern to the practice of psychotherapy, it is in fact at the core of the psychoanalytic endeavor" (Lichtenstein, 2012, para. 14).

The authors in Aron and Anderson's book (1998), as in many other current writings on the topic of considering relational clinical implications of the body in psychoanalysis (elaborated further in the next section), express a notable diversity, a diversity that is not limited to relational theory but is also present in current intersubjective and attachment theories. While there is a commonality in trying to understand a place for the body within the cultural, dyadic, and subjective experience, it is still far from cohesive. The relational views for the most part maintain a constructivist perspective even when considering actual physical experience in clinical process. A follow-up book that addresses the relational emphasis on incorporating the body into

clinical work was taken up in Anderson's book *Bodies in Treatment* (2008) and is reviewed in a subsequent section.

Teicholz addresses theoretical contradictions between postmodernism attitudes and neuroscientific research, particularly attachment and early infant development, and suggests that neuroscientific research paradoxically supports the basic premises of postmodern thinking: social constructivism, ambiguity, difference, and dissolution of the subject (Teicholz, 2009). Bidirectional influence and co-created meanings in the analytic relationship, for example, are areas both supported by infant, cognitive, and neuroscientific research, yet also align with postmodern attitudes breaking down the hierarchy of analytic objectivity and shifting the role of language-centered interpretation. “Perhaps the places where the elements of these contradictory approaches overlap are exactly at that fine point of psychic freedom before postmodernism crosses over into nihilism” (Teicholz, 2009, p. 71). Teicholz and other relational writers who are considering ways to incorporate postmodern ideas with neuroscientific research, however, still have not addressed the theoretical and philosophical incongruities.

Intersubjective.

The intersubjective focus further shifted psychoanalytic thinking towards an emphasis on mutuality within the system of the psychoanalytic dyad, attending to the impact of observer on the observed and the intricacies of two subjectivities. Further, it maintains a postmodern, constructivist view that the analyst's position, beliefs, and theoretical framework not be elevated to objective fact. Leaders in intersubjective ideas,

Stolorow, Brandchaft, and Atwood (1991) discuss the importance of subjective reflection, stating:

> It is essential that the analyst continually reflect on the operation of these principles, including those enshrined in his theories, so that their codetermining impact on the course of the analytic process—how their manifestations are, in turn, given exquisitely personal meanings by the patient—can be investigated and understood. There is no paradox here, only sustained empathic-introspective inquiry. (p. 363)

Further, intersubjective theory challenges the myth of the isolated mind, expanding Winnicott's (1960) dyadic parent-infant theory, focusing less on inner and outer, self and other, and the idea of isolated intrapsychic mechanisms, but instead on affective experience and mutual regulation within the child-caregiver system (Stolorow, Atwood, 1992). Stolorow and Atwood describe understanding the mind-body dilemma not in terms of absolutes or tangible entities, but in terms of self-experience that takes place within relational contexts (Stolorow, Atwood, 1992). They argue that the mind and body should not be discussed in isolation, but as Sander (1985) describes, a "living system" (Stolorow, Atwood, 1992, p. 48).

Intersubjective theory's postmodern perspective, which undoes the hierarchy of analyst as objective knower, focusing on intersubjectively created meaning and process within the dyadic system, therefore impacts the place of the body. Noting the impact of Merleau-Ponty (the phenomenology of perception) and Heidegger (the experience of "being-in-the-world"), Lichtenstein (2012) notes that intersubjective theories, through their elevating the role of "profoundly felt emotion, of passion and of suffering," stand at

a point where the "link to the body may be found" (Lichtenstein, 2012, para. 4). By centralizing the importance of affects, theory and practice naturally extends into the world of the visceral, felt experience associated with bodily states, responses, and organization -- the embodied self.

Benjamin's (2004) discussion of relational intersubjectivity, for example, has an emphasis on the "felt experience of the other as a separate yet connected being" (p. 6), pointing to the importance of nonverbal aspects of communication such as rhythmicity and tone, and connecting the social aspect of the dyad to the bodily communications and affects. Dyadic systems perspectives have been more extensively researched by Beebe and Lachmann (2002) through exploration of infant nonverbal interaction, pre-symbolic representation, and their impact on development of self and interpersonal experience throughout the lifespan. Similarly, Lichtenstein (2012) asserts that the body, for all psychoanalytic schools, is always present. He writes:

> In Jessica Benjamin's (2004) thorough articulation of a socially grounded and relational intersubjectivity, there is a bedrock appeal to the bodily based rhythms of arousal and attunement that constitute the earliest dyadic exchanges. That root developmental role of bodily experience is so determinative of the earliest social links that its effects, its symbolic derivatives, are never absent from subsequent interpersonal encounters (para. 7)

He describes the paradox of the embodied subject where even in the most interpersonal and socially oriented schools of thought, "the body inevitably returns" (Lichtenstein, 2012, para. 8).

Attachment.

Bowlby's attachment theory (as also expanded by Main and Ainsworth), developed separately from psychoanalysis and has had an ambivalent relationship with psychoanalysis (Fonagy, 2001; Palombo, Bendicsen, Koch, 2009). Bowlby's attachment theory is predicated on the core idea that infants are predisposed to social relationships and that relationships are essential for health and development. It holds a neo-Darwinian view that attachments were necessary for survival and that, as Fonagy points out, it is a theory that at its base is biological, seeing attachment as existing at the "molecular" level (Fonagy, 2001, p. 7). The biological element is what Fonagy sees as the center of the early conflict between attachment theory and psychoanalysis: that attachment, being not only biologically based, is also then behavioral. Palombo, Bendicsen, and Koch (2009) point out that the breach between Bowlby and the psychoanalytic community also stemmed from nonconformity from the then current drive-oriented theories. Fonagy (2001) further explains the difference between attachment and object relations theory:

> The goal of the child is not the object, for example, the mother. The goal that regulates the system is initially a physical state, the maintenance of a desired degree of proximity to her. This physical goal is later supplanted by the more psychological goal of a feeling of closeness to the caregiver. Because the goal is not an object but a state of being or feeling, the context in which the child lives, that is, the response of the caregiver, will strongly influence the attachment system because if the child perceives the attachment goal to have been attained this will affect the system of behaviors. (p. 8)

Fonagy explains that as psychoanalysis has become more relational, attachment theory has been seen as more relevant. He describes Bowlby as the "quintessential relational therapist" (Fonagy, 2001, p. 126). As the relational model replaced the psychoanalyst as outside observer to inside participant, and the paradigm shifted from objective truth to subjectivity, the intersection with attachment ideas began to expand.

Neuropsychoanalysis.

Neuropsychoanalysis founded its first journal in 1999, helmed by Marc Solms and began the formal use of the term neuropsychoanalysis (Solms, Turnbull 2011). The name itself implies the most overt goal to bridge psychoanalytic thinking with neuroscientific findings. Leaders in this area are, amongst others, Marc Solms, Oliver Turnbull, Eric Kandel, Regina Pally, Robert Emde, Louis Cozolino, and Allan Schore. This section will provide a general and brief review of primary topics covered by researchers and theorists in this group but it should be noted that this area is wide in scope and takes up multiple topics, which for the purposes of this study, are too numerous to cover comprehensively. Some related topics will also be covered in the following section, which discuss theories and ideas towards integrating neuroscience into clinical practice. However, what is notable from most perspectives and discussed in detail by Palombo (2000b, 2012, 2013), are the varying implications for epistemological models and the ongoing difficulty to organize the information into a cohesive psychoanalytic framework.

Solms and Turbull have raised important questions for neuropsychoanalysis. What, neuroscientifically, is important for psychoanalysis, particularly as to how mind and brain are conceptualized? They write:

> This opens huge philosophical questions. Are we *reducing* the mind to the brain, are we *explaining away* the mind, or are we merely *correlating* mind and brain? And if we are merely correlating them, what is the causal basis of this apparently compulsory correlation? Is the relationship hierarchical, whereby psychoanalysis studies mere epiphenomena of the brain? Or is the mind an emergent property of the brain?" (Solms, Turnbull, 2011, p. 136)

Solms and Turbull (2011) further argue that it would be foolish not to incorporate neuroscientific findings into understandings of mind and psychological function, as subjective experience is not enough on its own. Kandel (1999, 2012) has been direct in his call for collaboration of the two fields and its necessity for the future of psychoanalysis. "My purpose is to suggest one way that psychoanalysis might re-energize itself, and that is by developing a closer relationship with biology in general and with cognitive neuroscience in particular" (Kandel, 1999, p. 505). Kandel asserts that all human processes, including complex psychological ones, are biologically based brain functions. Mind is, therefore, ultimately an interweaving of complex brain function. Some of the major tenets that Kandel asserts are the importance of biological and cognitive understandings of memory and unconscious processing. An understanding of procedural memory, for example, provides a more complex understanding of unconscious processes. Further, his discussion of implicit memories and development of meanings within the therapeutic process became an area picked up further by Stern and intersubjective theorists (Stern, 1998; Kandel, 1999; Beebe, Lachmann, 2002).

Neuroscience has been integrated through different modes: a top down approach in which psychoanalytic concepts have been mapped on to brain function, and a bottom

up approach in which there is an attempt to correlate brain function with psychoanalytic concepts (Palombo, personal communication, Spring, 2012). For example, Schore has exemplified a top down approach by furthering a neurobiological understanding of psychoanalytic concepts, such as locating a neurological basis of sense of self (which he initially described as ego) as located and biologically platformed within specific brain areas and functions (Schore, 1994, 2002). On the other hand, taking symptoms of physically based disabilities and integrating them with psychoanalytic formulations, such as Palombo bridging learning disabilities and their impact on the organization of the self, exemplifies a bottom up approach (Palombo, 1996).

Literature that Utilizes and Supports Neurobiological, Body-Based Understanding within Clinical Practice

There is a growing amount of literature that advocates for increased inclusion of bodily-based and neuroscientific understanding in psychoanalytically-oriented clinical practice. This area is very broad and covers a multitude of ideas, from brain-imaging scans suggesting the neurobiology of repression (Barry, Fisher, 2014) to integration of yoga and bodywork in the treatment process (Anderson, 2008). It is nearly impossible at this time to make concise, general statements about the nature of this entire area of the literature because it is so varied. To do so would require a second research project. However, it is notable that very little of it provides direction or understanding into the usefulness of neurobiological findings at the ground level in the session room. While there are enthusiasts who are argue for more inclusion of the body in treatment practice, there is little direction as to how this might actually occur or be formulated within a

larger psychoanalytic treatment process. As an example, Blechner (2011) is enthusiastic about reestablishing a connection with the body and supports the work of Lombardi in seeing the body as an essential element for mental health, but gives little information as to how that might happen.

This area, however, is not shallow. Many theorists have reached quite a ways back to analyze psychoanalysis' history, epistemological considerations, and what these ideas mean for the future of psychoanalysis (Palombo 2000b; Fonagy, 2001; Kandel 1999, 2012; Solms and Turnbull 2011). Others, particularly Fonagy and Target, have evolved and modernized the bridge between attachment and psychoanalysis that stretches back to basic tenets of psychoanalytic thinking while also utilizing current research in neurobiology and cognitive psychology. Schore (1994, 2002, 2009), LeDoux (1999, 2002), Panksepp (1998), Solms (1999, 2000), Solms and Turnbull (2011), and Kandel (1999, 2012) have written extensively on the neurobiology of core psychoanalytic paradigms, particularly around psychoanalytic questions pertaining to theories of development, affect and emotions, memory, repression, and dreamwork.

Some others have taken up considerations of the body and perception, placing more emphasis on fitting bodily-related, neurobiological perspectives into existing psychoanalytic thinking. *The Embodied Subject: Minding the Body in Psychoanalysis* (Muller, Tillman, Eds, 2007) for example, focuses on the interrelation of bodily configurations and cognition through a wide array of topics such as phenomenological constructs and the subjective experience of the body (Frie, 2007), the body as maker of metaphor and fantasy (Modell 2007; Simpson, 2007), language development and meaning (Fromm, 2007), socially constructed meanings around body and gender

(Kalinich, 2007), skin as concretization of Bion's container (Elmendorf, 2007), and ideas of mimicry or mockery as bodily-based, non-verbal expression of capacity for differentiation (Tillman, 2007). While some clinical examples are given, a notable theme in the formulations and clinical discussions was the primary use of bodily experience and function as a metaphor that is interpreted by immersing it within existing psychoanalytic framework. In other words, following what Gill had discussed in seeing the importance of the body as metaphor and separating, or leaving out, the body as such, such discussions uphold another form of a mind-body split.

Similarly, *Bodies in Treatment* (Anderson, 2008), which is a follow-up to Aron and Anderson's (1998) book, covers topics such as yoga and psychoanalysis (Gerbarg, 2008), considerations of the impact of trauma on relational meanings (Eldredge, Cole 2008), the impact of the body on self and emotional organization (Bucci, 2008), and bodily influenced subjective experience as created and addressed in the analytic dyad (Knoblauch, 2008). These discussions have a notable interest in bridging the body into the psychoanalytic session and formulation, but do so through symbolic, representational perspectives with less consideration of actual physicality.

Further work on attachment and neuroscience was discussed in *Emotional Development in Psychoanalysis, Attachment Theory, and Neuroscience: Creating Connections* (Green, ed., 2012). Schore (2012) discusses the development of regulation through the intersubjective, affective, dyadic experiences that impact and are impacted by brain function in processing socio-emotional information. Turnbull and Solms (2012) address issues in the neurobiology of memory and its implications for changing core concepts in psychoanalytic thinking. Fonagy (2012) discusses the subjective, symbolic

process of human relationships and psychological development and the interrelated impact of genetics, considering the issues in weighting emphasis on parenting/socialization versus genetic/biological components, bringing a new perspective to the questions of nature versus nurture.

The Boston Process of Change Study Group has in large part focused on formulating developmental understandings within interpersonal experience, which in part includes neurobiologically impacted functions, such as aspects of implicit relational knowing, unformulated experience, use of language and perception in developing internal, co-constructed meaning. It has utilized nonlinear systems theory, cognitive psychology, attachment theory, and developmental psychology (Boston Process of Change Study Group, 2008). While research and writing includes and integrates current infant development and neuroscientific research, the group, in part, seeks to update psychoanalysis' developmental models, the main theoretical focus is interpersonal experience and the development of internal meanings, less on neurobiological specifics. Further, the theoretical approaches within the Boston Change Process Group are diverse and while they are part of psychoanalytic discourse, it is primarily the work of Daniel Stern who has been discussed within psychoanalytic theory. Though he did not clearly define a theoretical model and place himself firmly in the intersubjective theoretical realm, his developmental model centers on intersubjective experience as exemplified in the moments of meeting, the implicit ways of being and understanding self and other as created by interpersonal experience (Stern, 1985). Stern's ideas integrate both scientific research from developmental psychology and the subjective development of internal meaning. However, as Palombo (2000b) points out, the intersection of both scientific

research intertwined with narrative and subjective meanings places Stern's theories on both positivistic and hermeneutic paradigms, which "best exemplifies the unresolved tension within psychoanalysis" (Palombo, 2000b, p. 3).

Psychoanalytic writers such as Palombo (2000a), Eldridge (1996), Basch (1976), and Greenspan (2007) have offered some of the clearest clinical connections in understanding the impact of neurobiological differences on formulation and clinical process. In discussing a case of a female patient with learning disabilities, Palombo (2000a) describes aspects of the case process and formulation, emphasizing his point that body as metaphor and body as such are not inseparable. He writes:

> Cases such as that of Pat demonstrate that the division between causes and motives is clinically unworkable. The meanings she assigned to her experiences were always filtered through the neuropsychological capacities she brought to the events. Whether it was her ability to remember, the sensitivity of her sensory system, her capacity to conceptualize, the level of attention she gave to visual—spatial phenomena, or the affects aroused in her by events, each of these colored her experiences in a way that led her to perceive the world differently from others. In a sense her “reality” was different from that of others. The individual differences in her neuropsychological make-up contributed to the personal meanings she gave to events. To ignore the contributions of her endowment in the acquisition of meanings leads to an overemphasis on the contribution of environmental factors. It results in the view that she as a child did not contribute to the meanings she construed out of her experiences but was the passive recipient of what occurred. (p. 329)

While this is a brief excerpt, there is a notable focus on details of both endowment, psychological meaning, and clinical dynamics, a synthesis of formulation and clinical process that is rare in the literature.

Similarly, though from a seemingly less overt psychoanalytic perspective, Greenspan has offered a developmental model that expands Piaget's psychology by integrating individual, neurobiological differences, such as sensorimotor and language capacities, within a psychodynamic model (Greenspan, 2007; Palombo, Bendicsen, Koch, 2009). His large body of work in this area is also reflected in the culmination of a larger project which he led, the Psychodynamic Diagnostic Manual (2006), that was devised with the intention to expand the Diagnostic and Statistical Manual of the APA and offer a deeper psychodynamic understanding and the interrelation of neurobiological factors with psychological functioning.

What is also notable in this area of the current literature is that there is little clinical discussion about multi-disciplinary collaboration with related disciplines that address and necessarily clarify individual, neuropsychological specifics (i.e., a patient's sensorimotor, language, cognitive, or physical challenges). For example, Gerbarg (2003) discusses referring a client to yoga for a patient to address poor bodily awareness that she felt was impacting the patient's psychological functioning, but this is one of the few moments in the literature in which other disciplines are referred to or consulted. There is a general appearance within the literature of trying to extract information from other sciences but keeping the work, the language, and the theory within the professional boundaries of psychoanalysis. There is significantly less focus on collaboration, integration, and referral process with other disciplines. This is an interesting dynamic

given the interest in body-related, neurologically-related integration, yet seeming little openness to working more closely with other disciplines which may have more information on these topics.

Literature Reflecting Concerns in the Application of Neuroscientific Findings

The literature that expresses opposition or concern for neuroscientific findings within psychoanalysis is notably smaller in amount but high in pitch. In 1986, Edelson argued that there is too much uncertainty in how the two disciplines can be bridged. Perhaps related to an earlier point regarding the lack of multi-disciplinary collaboration, he suggested that until there is collaboration between the two in which one is not privileged over the other, the two disciplines should continue to each "tend their own respective gardens" (Edelson, 1986. p. 518). Nearly thirty years later, the arguments against neuroscientific findings continue to reflect similar leanings.

Quite similarly, Pulver (2003) offered a critique of neuroscience stating that, at the time of the writing, neuroscientific findings were still too new to integrate and warned against a quickness to make clinical assumptions. He does, however, offer more hope for collaboration than most critics and calls for dialogue and consideration of the two disciplines and inclusion of a neuroscience course in training programs (Pulver, 2003).

Karlsonn (2010) critiques what he sees as neuropsychoanalysis' attempt to equate subjective life and the physicality of neurobiology as two sides of the same coin (Karlsonn, 2010). He sees neuropsychoanalysis as supporting a dual-aspect monoism that diminishes options for dynamic thinking. He does not believe that there is a possibility, nor necessity, to bridge the two disciplines.

Blass and Carmelli (2007) have written one of the most direct critiques of neuroscience and see the debate over neuroscience as essentially a debate over the core aims of psychoanalysis. "Neuropsychoanalysis does not merely offer a perspective on the relationship between two separate fields, neuroscience and psychoanalysis (as maintained by its proponents), but rather leads to a new perspective on the nature of psychoanalysis—a biologistic one" (Blass and Carmelli, 2007, p. 20). Neuroscience, according to Blass and Carmelli, threatens psychoanalysis' core emphasis on psychic dimensions (i.e., insight) through a reductionistic biologicalization.

In 2012 and 2013, *Psychoanalytic Dialogues*, a contemporary journal which covers an array of relational perspectives, dedicated three issues to an in-depth debate on a related issue, that of systematic empirical research and its applicability, or not, to psychoanalysis. The debate was framed around Hoffman's (2009) article "Doublethinking Our Way to 'Scientific' Legitimacy: The Desiccation of Human Experience." Hoffman makes several important points that have been quoted, debated, and cited since by Safran (2012), Fonagy (2013), Cushman (2013), Stern, D.B. (2013), and Strenger (2013). He strongly cautions against the inclusion, and what he sees as an inevitable privileging, of empirical research and neuroscience to prove the relevance of psychoanalysis or drive clinical theory and practice. He argues that by privileging such information, the cruciality of a subjective, non-objectivist position in psychoanalysis is threatened. In this article, as well as others (1998), he argued against objectivism and positivism in psychoanalysis and instead for dialectical-constructivism, a postmodern position that deconstructs the hierarchical positions of the analyst-patient relationship, misdirected technical-rationality, and the illusion of knowing. Hoffman's point reflects

core points embedded in the tension of the broader neuroscience debate: that neuroscientific information risks medicalization, reductionism, and moving psychoanalysis in a positivist direction that loses a constructivist, subjective platform.

Within the debate, Donnell Stern (2013) has made similar remarks, stating that psychoanalytic endeavors are hermeneutic and are not in need of empirical data or research. He also believes that inclusion of empirical data will further an unnecessary objectivist agenda. He does not see hermeneutic and objectivist platforms as possible to bridge, stating that neither can be adjudicated against one another, but should be accepted as simply differing platforms. However, Stern does suggest that there may be a role for empirical findings if they, as well as the methods to derive them, are subjected to a hermeneutic inquiry (Stern, D.B., 2013). Similarly, Cushman (2013) argues in the same debate that empirical findings create an "authoritarian proceduralism" leading to "a brave new world" of professional mediocrity and flattening out of social dynamics and sense of selves (Cushman, 2013, p. 222).

Hypotheses Offered to Explain the Existing Psychoanalytic Tensions between Mind and Body and Related Neuroscientific Applicability

Different hypotheses have been offered to explain the professional tension regarding the mind-body split reflected in the neuroscientific debate or the theoretical ebbs and flows that include or exclude the body. These hypotheses have been primarily extracted from other theoretical or clinical literature and are not typically the subject of the literature itself, which reflects the absence of a direct inquiry into the debate and tensions themselves.

Aron (1998) and Stern (2013) suggest impacts from socio-political influences. Aron notes that the overall movement towards increasingly hermeneutic and relational approaches reflects the shift away from psychoanalysts being tied to the medical field. "Simultaneously, with this shift from a drive-centered to a relational theory, the profession of psychoanalysis has undergone a demedicalization, which may have further shifted the attention of psychoanalysis away from the body" (Aron, 1998, p. xxvii). Donnell Stern has offered thoughts as to the negative impact of medical insurance companies to move mental health treatment towards a medicalized model. He believes that the pressures from insurance companies to provide empirically, objectively proven effective treatment has equated a negative view and skepticism with empirical understandings. (Stern, D. B., 2013) Stern, however, believes there is a necessary skepticism in order to protect a hermeneutic model and cautions, along with Hoffman (2009, 2013), against falling prey to believing there is a necessity to objectively prove psychoanalysis' efficacy with empirical or neuroscientific data.

Pulver (2001) suggests that finding points of congruence in both fields and utilizing language that is compatible to both is a job that is tasked by both sides. He points out that there has been paradoxical resistance from psychoanalytic professionals. "We decry our relative ostracism by the scientific world," he states, "but many of us are reluctant to adopt a view that would bring us back in" (Pulver, 2003, p. 766). He sees the gap within psychoanalysis as not only deriving from Freud's early abandonment of neuroscience (which he sees as out of necessity, not out of theoretical interest), but also from the differences in methodology and confusion about what constitutes psychoanalytic theory. He states that there continues to be a "fear [amongst] many psychoanalysts that

the growing interest in neuroscience will lead to the misapplication or actual abandonment of crucial aspects of the psychoanalytic critical method" (Pulver, 2003, p. 768). The different languages used by various professions, he describes, may further contribute to those fears.

Others (Basch, 1976; Fromm, 2007; Lichtenstein, 2012) have discussed psychoanalysis' focus as a talking cure and its emphasis on language as another contributor to a mind-body split through its hierarchical placement of language and cognition over somatic aspects. Lichtenstein (2012), for example, argues that psychoanalysis has focused on the impact of culture and the internal world, as expressed through language, but that this focus solely on the expression of language as the way to formulate the internal and external world means that the embodied experience, the felt experience, is lost in formulating meaning. He sees psychoanalysis' focus on language and culture therefore as colluding with a mind-body split and leading to the body being left behind. One's subjective experience, he believes, must also be understood through its somatic perspective. "As there is a record of personal experience, however partial, inscribed in the body, so there is a record of cultural history in the language of a society" (Lichtenstein, 2012, para 2).

Further, the use of collaboration or referrals to related professionals whose discipline includes cognitive or bodily-oriented approaches, a neuropsychologist or occupational therapist, for instance, can imply more directive action on the part of the analyst. This, Cornell also notes, is a conflicted position for psychoanalytic practitioners. "I have often found many of my analytic colleagues reluctant to refer out for bodywork, both out of concern for giving advice and suggesting action (still a common analytic

taboo), and out of fears of splitting the transference" (Cornell, 2008, p. 44). This concern is reflected across the current literature; there is significantly little written about referrals or collaboration with other related disciplines. This dynamic suggests new questions to explore related to professional identity and why the community of psychoanalysis does not emphasize, or potentially considers it poor practice, to work collaboratively with other disciplines.

Elisha (2011) has offered the longest discussion of possible hypotheses. She believes that historical, religious, and cultural beliefs regarding "spirit", and correlating "myths of ascension", are reflected in early psychoanalytic drive theory through the hierarchy of mind over the 'impure, carnal body.' These perspectives began to deconstruct, she believes, as teleological (non-mechanistic) viewpoints became considered. "I am of the opinion that the implicit admittance of teleology into the philosophical underpinnings of contemporary psychoanalysis subtly undoes the spirit-matter split that has dominated the Western world during the lifetime of psychoanalysis. . . .I believe that evidence of teleological, as opposed to deterministic or mechanistic models, reveals the timeliness of reconsidering the spirit-matter divide" (Elisha, 2011, p. 154).

She further asserts, as Aron discussed, that the move towards the relational position in which actual relationships become the focus, has led towards "a significantly new encounter with the real world and therefore the actual body" (Elisha, 2011, p. 160). Similar to Dimen (1998) and Benjamin's (2004) discussion of the deconstruction of hierarchy, not only in the analytic relationship but regarding ideas of the role of the body itself, Elisha believes that psychoanalysis is ripe to deconstruct the ideas of the

unconscious. She also describes the manner in which the unconscious is seen as linearly connected to the somatic and residing in a regressive position that must be managed, must be overcome, in order to achieve maturation and health. Similar to some post-modern theorists, she is suggesting that current theoretical manifestations of the mind-body split also represent skepticism and a lesser-than sense about the somatic. By maintaining the hierarchical positions of mind over body, there is disembodiment, a move away from the body, which upholds the belief "that healthy development moves unilaterally in the direction of abstraction, or desomatization" (Elisha, 2011, p. 160).

Dimen (1998) also discusses the connection of body to biology, of biology to empiricism, and of empiricism to paradigms of truth which thus in a post-modern frame deconstruct. Therefore, the focus on the body creates a certain skepticism if taken as real or truth. Paradoxically, however, Dimen calls for an integration and reclaiming of the body. From a social constructivist perspective that deconstructs beliefs of truth about the body (particularly as related to gender and sexuality), she places an emphasis on understanding the impact social language placed on the meaning of body and encounter with the physical.

In contrast to Hoffman's (1998, 2009) discussion of constructivism, opposition to objectivism in psychoanalysis, and therefore the extension to critiques of empirical research and neuroscientific findings, Palombo (2000) discussed the philosophical conflict in those who lean towards a positivistic model versus those that lean towards a constructivist approach. He describes the crux of the issue as differing viewpoints over what can be "canonically interpreted" as an agreed upon, "fair-minded," objective interpretation (Palombo, 2000, p. 13). A constructivist position (as reflected in

postmodern relational and intersubjective theories) maintains that there are no possible canonical interpretations, while a positivistic position (most overtly utilized in neuropsychoanalytic theories) maintains that there exists an objective reality. As Palombo (2000) writes,

> The fundamental point has to do with the assumptions we make about our ability to read reality. Are we doomed never to know it but always be interpreting it, or is it possible that we can acquire more or less accurate renditions which others can recognize and with which they can agree or disagree? Which of these alternatives would make dialogue between people possible? (p. 13)

Palombo has illuminated "the chasm" of important epistemological flaws in both perspectives that are often forgotten within the clinical discourse. As a solution, Palombo has contributed in-depth theoretical discussions in "The Self as a Complex Adaptive System," (Palombo, 2013(a), 2013(b)) and, more recently, *The Neuropsychodynamic Treatment of Self-Deficits: Searching for Complementarity* (Palombo, 2017). Again, he utilizes nonlinear systems theory to organize biological, interpersonal, and intrapsychic modalities so that theoretically all three aspects can be considered as part of understanding the experiences and meanings for individual patients.

In closing, Fonagy (2012) has recently noted the question that this study has also set out to explore in his article "There is Room for Everyone in Doublethink: The Perilous Status of Psychoanalytic Research." He discusses the parallel constructivist and positivist debate within psychoanalysis and systematic interdisciplinary research, agreeing with Safran's (2012) argument for a bridge and middle ground between the two. " Much harder to understand," Fonagy writes, "is the high level of affect generated by the

debate" (Fonagy, 2013, p. 116). While Fonagy offers important considerations in both Hoffman and Safran's responses, he, too, is not able to account for the emotionality of the debate. This study hopes to further an understanding of this issue.

Summary

While the question of this study itself is fairly straightforward, the components embedded in the question are complex. This complexity is reflected in the literature. On one hand, there is a current debate about the relevance of neuroscience to psychoanalytic thinking, but this debate has various tendrils into epistemological and historical aspects of psychoanalysis' evolution. There is little literature that provides an overview of this debate and a perspective of the larger dynamic. Instead, the current state is a variety of differing opinions and clinical frameworks with little cohesion. The debate has, in part, supported a fracturing of psychoanalytic epistemology. This study aims to provide perspective on this fracturing as a way to contribute to a clearer understanding of an ongoing dynamic within the field.

The place of the body over the evolution of psychoanalytic theories has impacted and been impacted by the understanding of the mind-body debate. Psychoanalysis' history and its current configurations have shaped the debates considering the applicability of neuroscientific findings. The current crux of the issue centers on hermeneutic/constructivist leanings versus empirical/positivist leanings but further expands into the question whether or not the two perspectives can live together. Further, the review has also elucidated other secondary questions, such as how the community of psychoanalysis views collaboration with other professionals in different disciplines. This

is subtle in the literature but upon reflection appears significant. For example, Lemma's (2015) recently published book, *Minding the Body: The Body in Psychoanalysis and Beyond,* considers aspects of physicality as if they were brand new for consideration, as opposed to being known by numerous other disciplines for many decades. There is an aspect within some neuroscientifically-oriented, psychoanalytic discourse that suggests the attitude that psychoanalysis is the owner of this information rather than a collaborator, as if any information from other disciplines must first pass through the language and perspective filter of psychoanalytic thought. This is an area of interest to the study.

There also appears to be ambivalence towards actually using neuroscientific information in clinical work, even from those who express interest. Are there professional taboos or concerns which inhibit use and learning in this area? Do even those who express the interest also feel a sense that it is truly outside the realm of psychoanalysis? In other words, is there perhaps a less conscious resistance to such information because the idea of data or scientific findings automatically hits a dissonant chord that doesn't resonate with the hermeneutic trends within the community? Or is it simply a matter of not understanding the ways in which such information might be used in clinical process? These questions will be considered in the research process as areas to further explore.

Chapter III

Methodology

The impetus for this research arose from a curiosity about the ongoing emotionality involved in professional literature and collegial conversations regarding neuroscience within psychoanalysis. The curiosity led to questions about how the attitudes of practitioners at the ground level (teachers, practitioners, and supervisors) compare to, or have been impacted by, the current debates within the theoretical literature. Further, questions arose about what this dynamic says not only about the current climate towards integration of neuroscience, but the trends within the larger culture of psychoanalysis.

Methodology Rationale

This study utilized an Interpretive Phenomenological Analysis (IPA) as described by Smith and Osborne (2007) and Smith, Flowers, and Larkin (2009), a method that has evolved from hermeneutic and phenomenological frameworks. This study and the IPA method integrate perspectives of theorists such as Schleiermacher (1998), Heidegger (1962), and Gadamer (1975).

Schleiermacher emphasizes the art of interpretation, emphasizing a holistic, hermeneutic perspective that understanding is found in looking at the combination of elements, subjective and objective, the whole in relation to the part, and the part in

relation to the whole. More importantly for this study, he provides a framework that emphasizes the interpretive analyst as bringing to light what is still unknown to the participant, the analyst as one who seeks understanding "of the utterer better than he understands himself" (Schleiermacher, 1998, p. 266).

Similarly, Heidegger emphasizes the dualistic phenomenological aspects of understanding, that there are both visible meanings and hidden meanings. He states that "the expression of appearance can have a double signification: first *appearing*, in the sense of announcing-itself, as not-showing-itself, and next, that which does the announcing [das Meldende selbst]–that which in its showing-itself indicates something which does not show itself" (Heidegger, 1962, p. 53). Appearance, for Heidegger, is understood in the same sense of phenomenon and one must examine things as they present themselves with the intrinsic belief that it also means examining that which is latent and hidden, "which it is both a part of, and apart from" (Smith, Flowers, and Larkin, 2009, p. 24).

Gadamer's emphasis on history and context in the interpretive process is also a helpful component to the study. "Every experience has implicit horizons of before and after, and finally fuses with the continuum of the experiences present in the before and after to form a unified flow of experience" (Gadamer, 1975, p. 246). Connecting with hermeneutic aspects of Heidegger and Schleiermacher, he examines the relationship between the fore-structure (in this case, the analyst's preconceptions) and the new object. The interpretation must be consciously understood not only in the context of its historical and cultural placement, but also within the inevitable preconceptions of the interpreter and be open to what Gadamer calls the text's alterity. As a researcher, Gadamer (1975)

writes that “the important thing is to be aware of one's own bias, so that the text can present itself in all its otherness and thus assert its own truth against one's own fore-meanings” (p. 282). Therefore, the study follows Gadamer's assertion that it is not the goal to extinguish oneself as the researcher but “foregrounding and appropriation of one's own fore-meanings and prejudices” (Gadamer, 1974, p. 282).

An IPA therefore allows for integration of these important points and goals: that a) there are latent meanings to understand beyond overtly stated beliefs and attitudes, and that b) one must attend to preconceptions and biases as the researcher in order to interpret within the hermeneutic paradigm of understanding the impact of the before and after, impact of the whole on the parts and the parts upon the whole, and that in interpreting, the interpreter both impacts and is impacted by the data. The text (data) in this study was gathered through in-depth interviews and an IPA was particularly chosen in order to utilize and develop a rich, detailed picture of participants' experience, beliefs and attitudes beyond what had been directly articulated. The analysis of the data then utilized these hermeneutic and phenomenological precepts in the interpretation and conclusions.

An IPA also provided an option to consider why and how questions related to the participant experiences, an important set of information to the study. This study did not seek to simply survey participants' positions, but why they hold the positions that they do and what may be less conscious responses or experiences to the topic. It is intended to explore the emotionality of this topic. As Smith and Osborne (2007) describe, a detailed IPA analysis allows for asking questions of participants' text, such as "is something leaking out here that wasn't intended?” or “do I have a sense of something going on here that maybe the participants themselves are less aware of?" (p. 53).

Smith and Osborn (2007) and Smith, Flowers, and Larkin (2009) describe the IPA as particularly useful when one is seeking not only to understand an individual's perceptions of a particular experience, but also when one "is concerned with complexity, process or novelty." As seen in the literature, complexity is heavily embedded in the debate around neuroscience and hits upon many aspects of psychoanalytic theory and practice. Currently, there is little information about how this dynamic is understood, utilized, conceptualized, and integrated into the actual practice and teaching of psychoanalytic method. Nor is there much investigation into understanding the actual dynamic of the differing reactions itself.

Developing a ground level view from the participants that describes the perspectives, values, and beliefs about the topic required an individualized, idiographic approach. Sense-making not only of individual conscious beliefs and perceptions, but an analysis of the participants' less conscious perceptions, feelings and responses, was sought. The IPA, as Smith and Osborn describe,

> has a theoretical commitment to the person as a cognitive, linguistic, affective, and physical being and assumes a chain of connection between people's talk and their thinking and emotional state. At the same time, IPA researchers realize this chain of connection is complicated -- people struggle to express what they are thinking and feeling, there may be reasons why they do not wish to self-disclose, and the researcher has to interpret people's mental and emotional state from what they say (Smith & Osborn, 2007, p. 54).

Understanding the personal and cultural meanings in these emotional responses is a part of understanding the experience of. An IPA is therefore a very suitable method for

this type of investigation. In describing the process to get close to participant experience, Smith and Osborne (2007) highlight the interpretive activity of the IPA process as having a "double hermeneutic," that "participants are trying to make sense of their world; the researcher is trying to make sense of the participants trying to make sense of their world" (p. 84). It is therefore a process that from its phenomenological roots seeks to question and explore what it is like, while also utilizing empathy and interpretation to understand "what else is happening here that is not being articulated?" (Smith & Osborne 2007, p. 84). It is an activity that Smith and Osborne (2007) describe as "interpretation-understanding" (p. 84) to both empathize with participants as well as understand in order to make sense of. In approaching a topic in which the aim is to understand attitudes, personal beliefs, and perceptions, the IPA was chosen as an appropriate fit to get a richer picture of the experience and meanings for the participant, to, as Smith and Osborne (2007) state, "do greater justice to the totality of the person, 'warts and all'" (p. 84).

Research Sample

The research sample was comprised of a group of ten experienced, Chicago-area psychoanalytic clinicians who are also in the position of teaching and training psychoanalytic theory and practice. The sample was selected from the primary local organizations which offer psychoanalytic education: The Institute for Clinical Social Work, The Chicago Institute for Psychoanalysis, The Chicago Center for Psychoanalysis, and The University of Chicago. The start of the selection process began with a search through faculty lists at these organizations. The following ideas and information guided the development of the potential participant list. This information was understood to be

helpful in not only assessing potential experience or interest in the topic, but also indicating that a participant is articulate in areas of psychoanalytic theory and practice.

1. Clinical or teaching interests described in faculty bios of the targeted organizations that may be related to the topic of study.
2. The researcher's knowledge of the community that may inform who has presented, published, or taught certain clinical practice or theoretical topics. (Note: The researcher did not know any potential participant personally, but the researcher may have known of him or her professionally. Safeguards to prevent any risk or sense of professional vulnerability in the research process are described in the Ethical Considerations section.)
3. Persons in leadership positions of the select organizations, particularly those who may be involved in curriculum and continuing education development.

A "snowball technique" (Cresswell, 2007, p. 126; Rubin, Babbie, 2005, p. 343), in which potential participants may of his or her own accord offer suggestions and referrals for possible members with whom to speak, was also considered. Such referrals were considered, though whether or not one was contacted remained confidential.

In contrast to random sampling, this study required that participants were intentionally selected; they needed to be information-rich on a very specific topic. This is not to say that a participant needed to have in-depth knowledge about the specific debates regarding neuroscience and psychoanalysis per se, but he or she did need to know of the topic, have some reactions and opinions about it, and most importantly, have in-depth knowledge about the general scope of theory and practice of psychoanalysis to be able to describe and reflect on his or her position towards the topic.

Therefore, the sample was relatively specific and rare. It needed to be intentionally chosen with clear parameters on experience as practicing psychoanalytic clinicians and psychoanalytic teachers. This was to ensure that participants are in the position of both knowing aspects of psychoanalytic theory and practice and being able to articulate that, as well as being in the position of passing on ideas to students and newer psychoanalytic clinicians as a way to describe what is being cultivated in the community. Further, in a phenomenological study, not only is it important that the participants in the study have experienced the phenomena (Cresswell, 2007), but for the purposes of this study, it is also important that the participant can articulate and reflect on his or her perspectives of the phenomena itself.

Confidentiality was maintained as participant names were only known to the researcher. This was particularly important in to protect from a potential sense of professional vulnerability. The researcher's dissertation committee was not made aware of those contacted. The researcher did not ask for recommendations directly, but some participants had natural suggestions that were considered but kept confidential.

The rationale for intentional selection was so the data was relevant and consistent with the inquiry (Cresswell, 2007). While random sampling would potentially provide controls for selection bias, bias was not understood in this project as necessarily problematic, but a given factor that had to be used constructively in developing ultimate understandings of the project and its conclusions. A disclosure of researcher bias towards the topic was included as part of addressing that factor.

Potential participants were contacted initially by phone. The purpose of this phone call was to use a personable approach. Emails, for example, were not seen as an initial,

helpful recruiting tool as they could be seen as junk email, get lost in filters, and appear impersonal and random. Participants were chosen specifically because he or she seemed to have something important to say about this topic and most potential participants felt it was a compliment to their experience and expertise to be recruited.

This initial call included a brief description of the mission and process of the study. In order to address any sense of professional vulnerability, it was made clear from the start of the call that the list of people who are contacted is kept strictly confidential and was known only by the researcher. Equally important, the researcher made it clear that she understands if the member does not want to participate, had no problem personally or professionally if someone was not interested in the study, and that there were no intended professional repercussions to not participating.

Once a participant was interested, a screening was done to determine applicability to the study and gauged participants interest and knowledge in discussing the topic. Secondly, the screening was used to gather basic demographic information and ensure that they met the selection criteria. Participants requirements were that he or she must have a) at least 10 years of experience as a licensed clinical social worker, clinical professional counselor, clinical psychologist, or psychiatrist, and who have received training and currently practice as psychoanalytic/psychodynamic mental health clinicians, b) at least five years of experience teaching within a psychoanalytic curriculum at a university program with a master's degree in clinical social work or clinical counseling, a doctoral program in clinical psychology, or at a psychoanalytic training institute, c) are willing to be interviewed for approximately two sixty-minute periods in a private, face-to-face situation, and, d) at least some basic knowledge and opinion regarding the current

debate within psychoanalytic theory as to the relevance of neuroscience.

After the initial phone call, a follow-up email was sent that included a written description of the mission and process of the study, including the requirements for consent, and the participant was asked to confirm interest in participation.

Exclusion and inclusion criteria.

Participants' involvement in the community as experienced clinicians and teachers was essential. As noted above, they must have at least 10 years of experience as a psychoanalytic clinician and 5 years as psychoanalytic teacher. Participants were not excluded based on gender, race, or ethnicity, nor was participant inclusion determined by these factors. Because the study sought to elicit perspectives of those who are teaching and practicing within the psychoanalytic community, participants who had authored major works on the research topic were not included as those perspectives have already been articulated and the study specifically sought to understand attitudes, perspectives, reactions, and beliefs *towards* those articulated and published positions amongst the members of the psychoanalytic community.

The study also sought to gather a variety of perspectives and not simply hear from participants who hold one position; therefore, in an initial phone interview, the researcher asked potential participants general questions as to whether they see neuroscience as relevant, irrelevant, or somewhere in the middle, in order to garner varying perspectives.

The location of the targeted schools and training programs were specific to the Chicago area in order for the researcher to easily conduct face-to-face interviews.

Research Design

In an IPA, as in most phenomenological explorations, no particular predetermined hypothesis is going to be tested, but instead the aim is to investigate with flexibility and gather rich, detailed data about a concern (Smith, Osborn, 2007). The primary methodology for the investigation, state Smith and Osborn, is the semi-structured interview process. The semi-structured interview allows for and utilizes what Smith and Osborn describe as (a) an attempt to establish rapport with the respondent, (b) less focus on ordering of questions, (c) freedom for the researcher to probe interesting areas that arise, and (d) opportunities to follow participants' interests or concerns.

These points emphasize an important aspect of the IPA, which is to get the individuals' subjective perspectives with rich detail. Such a format allows for individualized tailoring of the process to each individual participant's process in order to gain close, detailed access to participant perceptions, while still maintaining a necessary focus on the topic and important areas of investigation.

As the main source of data collection, interviews were intended to gain rich text, extract meanings, and formulate an interpretation about the attitudes and beliefs embedded in the phenomena of this debate, not only what participants theoretically believe about psychoanalytic practice, but also what their perspectives and experiences are within the larger community around this topic.

The study therefore maintained the principles of a phenomenological study in seeking, as Cresswell (2007) states, a process for “describing what all participants have in common as they experience a shared phenomenon" (p. 58-59) and seeking a way to ascertain and describe both a universal essence as well as differences within participant’s

experiences. Cresswell, using Husserl, describes phenomenology as philosophically based on the idea that each person has a unique perception of their experience and that consciousness is directed toward an object. Reality, while inextricably related to one's consciousness of the object, is only perceived within the subject's subjective meaning of the experience (Cresswell, 2007). Similar to a psychoanalytic process, the understanding of another's subjective reality requires interpretation of that which may be unconscious. An IPA, a methodology provides for a hermeneutic interpretation of the data by the researcher that utilizes both exploration and empathy. Nonverbal communications such as body language and emotional tenor of responses, for example, will be part of the data collected by the researcher through field notes during the interviews.

Further, while the study was positioned closely to understand the subjective experience of a participant, it also considered the researcher's bias and the intersubjective aspect of the researcher's interpretation. During the process of the interviews, clarifications about participants meanings were often made to ensure reflecting the intended meanings as accurately as possible. As noted, researcher responses to the topic sin the questions in order to elucidate them, were utilized in order to navigate bias. The goal was be not to bracket off researcher bias and extinguish it from the analysis, but to call out the bias and utilize it in understanding it as impacting, or being impacted by, the interview process and topic content during the analysis.

Information Sought

Contextual.

Participants were chosen from Chicago area programs that provide psychoanalytic education: Chicago Institute for Psychoanalysis, Chicago Center for Psychoanalysis, the

University of Chicago, and the Institute for Clinical Social Work. It is possible that there was a trend in participant experiences and perspectives on the topic due to the location of all participants being similar; in other words, data could look different if the study had taken place in another city with other psychoanalytic organizations. Further, many professionals have typically known each other over years of practice, have trained together amongst similar minded people, and have attended the same workshops and professional training events in the area. In this way, while there may be many similarities with the larger psychoanalytic community, the sample is not intended as representative of other psychoanalytic communities, but rather is a small subset. And for that matter, even the perspectives communicated by each participant are understood to be shaped by their respective professional community, there are many discipline-specific factors, such as the literature, the specific organization that a participant is involved with, personal interest and experience, etc., such that the conclusions are not meant as representative of dynamics to the Chicago communities, either.

Contextual information was included as part of the interview process. Because clinical orientation may be relevant to the research questions, each participant was asked to describe where they received their psychoanalytic training, in what ways they see their training as similar or different from how they currently practice, and in what ways they see their training as similar or different from their current community of psychoanalysis. Psychoanalytic training was not limited to formal training to be an analyst, but included training in psychoanalytic-oriented psychotherapy. Interview questions also included asking participants to describe not only their own personal attitudes towards the relevance

of neuroscience, but also how they perceived the attitudes within their respective psychoanalytic communities and in the larger field.

Demographic.

A small amount of demographic information related to selection criteria was collected both in an initial screening on the phone and then again on paper at the beginning of the interviews. The information collected included: professional degree, number of years receiving psychoanalytic training, number of years teaching psychoanalytic courses, and number of years practicing as a psychoanalytic practitioner. Other types of demographic information such as age, gender, or race, were not seen as applicable or relevant to the study.

Perceptual.

As a phenomenological oriented study, participants' perceptions were the primary focus of the study and gathered specifically through the interview process. This included areas such as how participants experienced and thought about the tensions, perceived their own evolution of thinking on the topic over their careers, how they conceptualized the current state of psychoanalysis as related to the topic, how they understood clinical or theoretical issue and controversies, how they approached these areas as clinicians and teachers, and what concerns or disagreements they had with aspects on either side of the debate.

Theoretical.

Similar to the perceptual information, theoretical information was gathered from participants perspectives on their theoretical beliefs around the topic. Theoretical information within the literature is primarily covered in the literature review.

Data Collection

This study used two types of data: interviews and researcher field notes. Following the methodology for an IPA, the interviews were semi-structured. Each participant was interviewed twice for approximately 60 minutes each, however in a few cases the timeframes had to be adjusted. In one case, a participant needed to schedule three shorter interviews and in another, a participant needed to schedule one two-hour interview. The purpose for multiple interviews was to provide time and opportunity to develop some sense of familiarity and rapport to help participants provide more honest reflections. Secondly, the multiple interview format was intended to allow for elaboration of ideas and thoughts that may not have occurred to the participant in the first interview, as well as allow new questions to be asked that became relevant as the interview process proceeded. Additionally, because the nature of the research question and topic itself can typically have an emotionally charge, the multiple interview framework was also considered to increase opportunity to catch emotional meanings and clarify complex thoughts to ensure they are understood accurately.

Detailed field notes were also kept to record perceptions, thoughts, ideas, and non-verbal communications that occur during the interviews as a way to get information about latent meanings and reactions. These notes helped assess and evolve the interview

questions in and capture as much of the subjective experience (for both the participant and the researcher) as possible. Both the participants' and the researcher's affective reactions and thoughts were considered important data in understanding themes in the dynamics as they arose in the interviews themselves that potentially reflect something about the larger topic. While phenomenological research cannot be free of researcher influence, the notes served as one way to provide a means to capture the researcher's reactions and perceptions.

Similar to the process of psychoanalytic interpretation, Robert Yin in *Case Study Research: Design and Methods* (2013) describes important skills for a researcher: being a good listener, adapting to situations, and maintaining a firm grasp on the issues being discussed:

> Being a good listener means being able to assimilate large amounts of new information without bias. As an interviewee recounts an incident, a good listener hears the exact words used by the interviewee (sometimes the terminology reflects an important perspective), captures the mood and affective components, understands the context from which the interviewee is perceiving the world, and infers the meaning intended by the interviewee (not by the researcher). (p. 73)

While Yin is discussing these skills in the context of a case study method, the principles applied to the interview and data gathering process. Many aspects of the case study and the IPA overlapped, particularly the goal of attaining detailed descriptions and seeking to capture subjective experience of the participant. More importantly, the researcher's awareness of her responses and their impact has similarities to the psychoanalytic process of managing countertransference and formulating intersubjective

understandings. Other attentive listening skills necessary for this type of data collection. Following the participants narratives, attuning to affective process, and potentially bringing to light less conscious or less formulated ideas paralleled psychoanalytic technique. As in the therapist's process of understanding individual, subjective experience in psychoanalytic therapy, the researcher similarly employed these skills to capture what could be understood about the participants' subjective experiences.

As suggested by Smith and Osborn (2003), an interview schedule was used to help the maintain focus and clarity on the information that is being sought, anticipate difficulties or sensitivities, and provide options for handling difficult situations. As part of an iterative process, the use of the questions evolved and changed based on the directions of the content that participants shared. They also evolved as it became clear which questions were more helpful to the study's questions. Interviews moved from semi-structured to unstructured with flexibility, depending on the direction of the responses. Notes were kept about the process of evolution over the interview process.

Initially, a brief form was filled out to gather demographic data and confirm participant criteria are met. Open-ended questions were then asked to initially help the participant feel comfortable and develop a positive rapport with the interviewer, which turned out to be a noteworthy and important aspect of conducting the interviews. Questions typically moved towards more depth-oriented questions to get descriptions of personal beliefs and attitudes. Significant attention was paid to providing a safe context to openly discuss thoughts so that as much information about personal beliefs and attitudes about areas of the research topic could be shared.

Interviews were recorded and then subsequently transcribed. Participants were made aware of the recording process at the start and signed necessary documentation regarding informed consent and confidentiality. Participants were also assigned a number so that names were only known to the researcher. Copies of recordings and researcher field notes were kept in password-protected computer documents and for printed material, a locked, confidential cabinet.

Data Analysis

The primary goal in an IPA, according to Smith and Osborn (2007), is to learn something about the psychological world of the participants. They describe the formulation of meaning as a process in which the "aim is to try to understand the content and complexity of those meanings rather than measure their frequency" (Smith & Osborn, 2007, p. 64). Therefore, the data was approached with an interest in discovering meanings that are not easily transparent and which, as Smith and Osborn (2007) state, "must be obtained through a sustained engagement with the text and a process of interpretation" (p. 66).

To achieve an understanding of meanings, the steps of an IPA as determined by Smith and Osborn that is both inductive and iterative was used in both within-case analysis and cross-case analysis.

Within-case analysis.

Interviews were transcribed by a professional transcriber and done so in a naturalist manner so as to keep the detail of the natural and non-verbal speech patterns. Once interviews were transcribed, the transcripts were read multiple times to gain familiarity and become immersed in the data. A review of the transcript with the audio was done to check for any missing information. A written description of initial thoughts, reactions, questions, and general impressions about the data and potentially emerging themes were recorded.

An initial gathering of themes was first made in the left-hand margin of printed transcripts to record interesting or significant statements. This was done so by going through line by line, looking for descriptions of attitudes or beliefs as well as for similarities, differences, contradictions, or amplifications to begin gathering an initial set of emerging themes. As described by Smith and Osborn, reading and commenting is "close to being a free textual analysis. There are not rules about what is commented upon, and there is not requirement, for example, to divide the text into meaning units and assign a comment for each unit" (Smith & Osborn, 2007, p. 67). During a second read-through for themes, the audio was included to double-check again for any missing information, but also to help remember or elicit themes that weren't always so overt on paper. Notes were also kept as questions and thoughts emerged about the themes themselves, including reflections on what was observed about oneself as the researcher (reactions and evolving viewpoints, for example).

Themes were also gathered into categories as multiple-layers of data emerged, using different colors to categorize each. These larger categories of themes initially were

data that reflected on one level specific pros or cons on the topic, but on other levels reflected dynamics that occurred in the interview process itself (how there was a different tone from the beginning of the interview to the end), or interesting dynamics about the participants beliefs (complexities in participants' thoughts, for example).

A third and fourth round of going through the interviews and grouping and charting the themes led to a more evolved list of themes. The evolution of the categories was also organized into charts to track shifts in thinking about the schemes. This included looking for patterns, convergences and divergences, as well as commonalities and nuances. The goal was to find expressions that reflect what Smith and Osborn (2007) describe as a "high level enough to allow theoretical connections within and across cases but which are still grounded in the particularity of the specific thing said" (p. 67). It was noted which themes tended to repeated and which were novel, as well as if there was anything noteworthy about when they occurred in the interview.

Using the evolved list of themes, quote clusters were cut and pasted into those theme categories for each case. Each case was dissected to extract the relevant text and quotes to each theme topic. Not every case had something relevant to every theme topic. In this way, each case had its own analysis. Those categorized quotes were then re-checked against the actual transcript again, in part to double-check that a quote's cluster connected logically to the intended meaning, and in part to see if any other details emerged relevant to the themes. It was notable that each reading deepened the connection to the data and each time a new thought or relevant detail was found.

Data analysis charts were then used to better organize data and see the data within each case by the themes. The charts also offered an opportunity to better see the data for a cross-case analysis.

Cross-case analysis.

Cross-case analysis was used to look at the similarities and differences. As suggested by Smith and Osborn (2007), when sample size is small, it is helpful to approach the cross-case analysis once all individual analyses have been completed. A second table of larger themes was constructed as to how they emerged across the data, looking for what themes jumped out as more potent than others or themes that illuminate themes in another case. Notes were kept during this process as to possible early ideas about the data and interpretations.

Ethical Considerations

Every effort possible was made to ensure that the study was conducted in an ethical manner at all stages of the research process to establish safeguards that protect participants rights and secure their informed consent, protect participants from harm, and ensure anonymity. It was not expected that there would be any significant or severe risks to participation in the study, but because this is a study within a community in which the principal investigator is also professionally involved, there was some risk of feeling professional vulnerable. While the study maintained strict confidentiality, participants were thus likely be known to the researcher as both are a part of a local, professional community. Further, considering the emotionality of the topic, it was important to not only ensure confidentiality, but provide a respectful context for participants to express

their perspectives and the feelings that might come along with them. Emotional reactions within the discussion were welcomed during the interviews and it was clarified that there are no right or wrong answers. Further, to avoid misunderstandings, meanings and intentions were also double-checked during the interviews. The stated risks for this study were notable and require oversight, but they were manageable within the study's structure.

To recap, an informed consent form was also presented to participants at the start of each participant's first interview. The consent (Appendix A) included the following information:

1. The purpose of the study, the school institution with which the student is affiliated, the name of the researcher, and the names of the researcher's dissertation committee.
2. Agreement statement that the participant agrees to two confidential interviews, which were recorded and transcribed.
3. Statement that confidentiality and anonymity will be kept in order to protect against each participant's personal and professional exposure. No personal identifying information was shared and each participant will be assigned a participant number so that no names will be used during the analysis of the data or write-up of results in the dissertation. All recordings, transcripts and notes were kept in a locked cabinet or in password protected computer documents, to which only the researcher had access.

4. Notice of participant's rights to withdraw from the study at any time without negative consequence.

Issues of Trustworthiness

To address issues of credibility, researcher bias was clarified and is summarized in a section below. The field notes will also include reflective notes about the researchers own responses and reactions. Use of in-depth interviews also provided substantial interview time, which, as Bloomberg and Volpe (2012) describe, "facilitates a more in-depth understanding of the phenomenon under study, conveying detail about the site and the participants that lends credibility to [the] account" (Bloomberg, Volpe, 2012, p. 113).

Dependability was be achieved through detailed accounts of the data collection and analysis. As a hermeneutic and phenomenological exploration, it is ultimately a subjective process with subjective interpretations. The use of extensive field notes that captured the process of the researcher's thoughts, reactions, and biases, along with attending to the researcher's own beliefs and background, were the best ways to address issues of personal bias and use it as constrictively as possible in developing the ultimate picture of the data, which while also a subjective interpretation, the goal was to also garner and share new perspectives, questions, and considerations.

Limitations and Delimitations

As discussed, a qualitative, hermeneutically oriented study has inherent limitations, primarily researcher bias and generalizability. However, bias was expected and considered part of the information within the analysis. Again, researcher bias was

not expected to be eliminated, but was clarified and understood for its impact on process and analysis. It is also noted that the study is too small to achieve generalizability; given both the size and focus on subjective information, generalizability was not an intended goal of the study. The intention was not to develop a generalizable theory.

Delimitations revolved around the scope of the study. Psychoanalytic practice, theoretical belief, and personal perspectives vary greatly within the field of psychoanalysis. There are also regional differences around the United States that tend to emphasize certain perspectives over others. Due to the small size of the study, it did not assess all regions and subgroups within psychoanalysis focused on a small group of clinicians affiliated with a training and educational institution in the Chicago area. Further, while participants typically shared specific psychoanalytic perspectives, participants were not selected based on their theoretical view. It was not intended to compare theoretical views in that way. Therefore, there was a possibility of certain theoretical perspectives being more heavily weighted in the data. Theoretical perspective, however, was not seen as important to the study as much as particular beliefs about the relevance of neuroscience. While these areas overlap, it is the intention of the study to look at psychoanalytic views more globally, and personally, towards neuroscience versus a perspective from a specific theoretical point of view.

The Role and Background of the Researcher

A foregrounding section was included in Chapter I. To briefly summarize, the researcher has extensive experience in the professional worlds of psychoanalysis and multi-disciplinary treatment that incorporates neurobiological perspectives. In that

regard, she is knowledgeable about both sides of the debate from a theoretical and methodological standpoint. This knowledge and experience allowed for a deeper understanding of the meanings embedded within the beliefs and reactions, particularly as a professional who has reacted as well as experienced the affective dynamics surrounding the debate.

As a psychoanalytic clinician, that background also provided familiarity with the interpretive steps of data analysis, particularly considering intersubjective meanings in the analysis and conclusions.

Chapter IV

Findings Overview

The analysis involved data gathered from 10 experienced and psychoanalytically trained clinicians who all were connected with one of the three local area psychoanalytic and psychodynamic institutes: the Chicago Psychoanalysis Institute, the Chicago Center for Psychoanalysis, and the Institute for Clinical Social Work. In all cases, participants had been working as a psychoanalytically-oriented therapist (minimum 10 years), taught within one of the three organizations listed above (minimum 5 years), and also held some form of leadership position (either currently or at some point within their career) within those organizations. Though not an initial criterion, each participant also had had some type of role at points in their careers working on curriculum for the program or institute they were affiliated with. Each participant was selected based on his her meeting the above criteria but also based on general perspectives towards the topic. In other words, participants were not chosen randomly, but chosen so as to ensure a variety of perspectives regarding the study topic.

All participants were experienced clinicians who described themselves as regularly involved in reading professional journals, attending psychoanalytic conferences, and participating within their psychoanalytic community. Not all participants were trained as psychoanalytic analysts (though 8 of 10 were), but all had psychoanalytic training, taught from that perspective, and held those perspectives as core to their clinical work. All participants worked with adults as their primary type of client, though most (8

out of 10) also had worked, or were concurrently working with, children and/or couples. Participants also held a variety of professional degrees: MD (4), PhD (3), and MSW (3).

Participants were interviewed in their respective professional offices for convenience, familiarity, and privacy. All participants were happy to talk about the topic and from the start had an eagerness to share their ideas. In most cases, participants were interviewed in two separate interviews lasting 45-60 minutes each. To accommodate three different participant's schedules, one participant met for a longer two-hour interview, in another case the participant was only able to participate in a single, one-hour interview, and in another case, three 40-minute interviews were conducted.

Analysis of the data involved reviewing data for themes, both through transcripts of interviews, field notes, as well as notes taken during a second or third listen to the interviews themselves as some qualities of the interviews could be understood better through la repeated listening, particularly noticing themes that were related to the dynamics of the interview processes. Further, listening to the interviews also elicited more data and recollection regarding the researcher's experience.

The transcripts were analyzed for initial themes. The first round of gathering emerging themes intentionally cast a wide net. From the initial list of themes, a second, condensed list was made and the data was analyzed again using a color-coded system to mark sections that fell under each theme. This list of themes also made up the initial categories and the color-coded data was then organized in a Word document per each individual case, cutting and pasting each relevant quote into categories for each case. From this stage, the categories were again reviewed and edited slightly where there were some redundancies. Data was placed into analysis charts that organized the data per each

case, provided one way to view themes across cases, and insure as the data related to the original study questions.

The data in this chapter is presented and organized in terms of the initial study questions. The data is discussed in terms of cross-case analysis as the various data sets that related to the themes across the cases was more relevant to the larger study. For example, the charts help to present the data within each case as to participants reactions to a specific theme, such as the pros or cons of research and empirical validation. However, what is more relevant to the original study questions are looking at the comparisons across cases as to the larger themes, perspectives, and complexities throughout the group. For example, the cross-case scope of perspectives around research and empirical validation as they compare and contrast within the group was more helpful. From that cross-case discussion, the within-case data is also presented. Hence, the presentation in this chapter focuses more on how the group has variations, similarities, and important differences. Chapter V will consider conclusions and interpretations of those variations, which also considers both within-case and cross-case data.

The first two sections in this chapter look at the participants' perspectives on the pros and cons of neuroscience. The data is not necessarily surprising given the literature, but they do provide a unique view into how this large topic has landed and what is meaningful to this group of participants. The following three sections discuss interrelated themes that emerged about *how* the perspectives are discussed, what that reflects about the community dynamics, and, from a broader perspective, larger epistemological ways of approaching psychoanalytic work, while also focusing on the questions of the study. Some of the interrelated themes are considerations of how do we formulate and know

what we know? What shapes the ways we make meaning of behaviors and formulations? And more specifically, how neuroscience adds, doesn't add, or challenges paradigms to those processes of knowing and formulating.

Neuroscience is Helpful to Psychoanalysis

This section focuses on the general and specific ways that, for participants who found neuroscientific information helpful, how they found it helpful within the treatment process, how it helped understanding and being more empathic to patients and in developing their formulations, or how it helped in understanding theoretical aspects of psychoanalysis. In general, all participants found neuroscience of interest, but with significant variations as to whether it was relevant or applicable to psychoanalysis. Even within the group described here, those who did find some relevancy, there was variation as to just how relevant and in what specific ways. Participant 4 commented that "I think it adds to an understanding of the significance of human relationships and what they mean, and how they happen, and what happens when they're interfered with," a comment that reflected a general view held by participants in this group, that neuroscience is helpful in understanding one of many dimensions of human experience and psychological meaning. Nonetheless, participants varied as to what was specifically applicable to psychoanalysis. For those landed more outside of this group, neuroscience may be interesting and helpful, but not necessarily in the domain of psychoanalysis. The areas where participants saw neuroscience as not applicable or problematic will be discussed in a subsequent section.

The sub-headings below reflect the main areas that neuroscience emerged from the data as helpful. It is wide in scope, reflecting the large scope of neuroscience. The

headings are not necessarily comprehensive to all the potential ways that neuroscientific information may be applicable.

Educative tool.

This category reflects how participants found neuroscientific information in general was helpful when brought directly into a session and used in the process with a patient as a way to explore. and potentially add to, understanding something about the patient. As a category under attitudes of neuroscience as helpful, this category was the least remarked upon and it was more typical that participants commented that they did not use these perspectives or specific neuroscientific information directly in a session. The data reflects that, in general, using neuroscientific information directly in a session is not seen as typically helpful in the process with patients.

However, some participants gave examples of where they did find that action helpful. For example, Participant 9 described using neuroscientific information in a clinical situation “as an explanatory tool” or “to explain some brain disorder for their [patients’] child, or [in another case] their spouse.” This participant described how a patient had discovered, through neuropsychological testing, that he had executive functioning challenges and this information helped focus part of the process with the patient in understanding his own behavior and reactions, particularly in the marital relationship. In this type of example, the participant described how understanding the executive functioning for the patient helped the spouse understand particular forgetful-like behaviors as something beyond an expression of anger or discontent, but as a reflection of a particular challenge or incapacity.

Participant 3 described how understanding a patient's learning disability, which was also discovered through neuropsychological testing, was information that came into the sessions directly as information that was discussed between patient and analyst as a way of re-framing and more deeply understanding the patient's experience. The participant described that information as helping the analyst to start "talking about something that was much closer to [his] subjectivity." Similarly, this participant expressed how neuroscientific information might be used directly:

> On the other hand, if you have the neuroscience version of it [the symptom], or you think that's what's going on, you can say to the kid something like, "The way your brain's wired, you're not very good at controlling impulses. Since that's been such a pain in the neck to you, I'm going to work with you to learn how to do that better." I'll be quite directive about what you should be doing or what you might do…So for that example, a lot of these kids, a lot of kids like this, are profoundly ashamed. "I did such a stupid thing. I'm stupid." Well, no. You're not stupid. You're impulsive. It's something that can be understood.

When asked about using neuroscientific information in this way with adults, the participant also stated that it would be similar and described a similar example using an adult.

Conversely, some participants noted that while neuroscientific information was beneficial, it was not seen as helpful in the direct process within a session. For example, Participant 2 described how neurobiological information was very helpful in clinical understanding, but in an example of considering a particular patient's difficulty with affect regulation and repetition compulsion, the participant stated that the direct use of the

neuroscientific understandings (in this case regarding regulation), was not useful or helpful in the session directly. The participant typically chose not to bring that type of information into the sessions. Instead, the participant described the approach would be to understand the relational dynamics of "what is happening here and now" and cultivating "an openness to hearing how she's [the patient is] feeling and being responsive." Participant 2 further stated that, "it isn't necessarily any verbal interpretation that's helping her [the patient] necessarily. It is that she learns to manage from her experience with the consulting." [Note: "manage" was referring to affect regulation, and "consulting" was clarified to mean psychotherapy.] In this sense, the participant described that the *experience of* the therapy process, as different from the verbal interpretation or discussion of information per se, was more front and center in terms of therapeutic action; neuroscientific information provided an understanding for the therapist of the patient's experience and enhanced the responsiveness to the patient.

Five others participants (1, 4, 6, 7, and 8) all clearly stated that directly using neuroscientific information was unnecessary, unhelpful, or irrelevant to the clinical process in the sessions.

Something real or clarity in concrete.

This category referred to perspectives in which participants expressed that neuroscientific information provided a sense of clarity in understanding something about a patient, particularly in the sense that participants felt that it described something real about a biological aspect. The concept of real came up in a variety of ways and is an interesting concept to consider regarding how participants felt that neuroscience could

describe or offer clarity around something functional or biological, something that felt more real in a concrete way differed from other aspects of psychoanalysis in the sense of something to hang onto, versus a more symbolic or abstract way of holding an idea or meaning in mind.

Participant 2 described a case example in which a neurobiological understanding of panic and agoraphobia helped understand the patient's affective reactions:

> I think about affects, different emotional systems, the idea that those different affects can alter how one thinks, the cognitive developments that if you are fearful, you're not thinking in a discriminating way, for example. Or if you're ashamed, again, you pull back and you just, their thoughts get flooded, but with memories of shame. And your whole way you think is organized by the affect, in a way.

The participant further described that "it [neurobiological information] does help you think about it differently. It does help you realize that it's about panic, it's about…the grief system." In this way, the participant was describing how a neurobiological understanding of panic, a system, provided a helpful way to think about the patient's affective response, particularly that the response was part of biology.

Similarly, Participant 3 also noted understanding and responding to a patient's shame was often interrelated with understanding certain neurodevelopmental differences. As noted in the previous section, Participant 3 described being direct about a specific learning challenge with a patient but was also conveying an idea that there was something there, in the sense of something different from higher level thinking, something more biological and clear, stating that "it's something that can be understood." Here,

Participant 3 describes the sense of something concrete, to not only understand a particular behavior, but to also help reframe self-critical meanings and feelings of shame that the patient had developed.

Participant 3 also described the use of neuroscientific information as useful in teaching students about affect and drive, stating that "I'll often introduce Panksepp's work with the laughing rats because that really convinces students that play is *really there* and built-in." Similarly, this participant described interest in how neuroscience can offer increased understanding of behavior. "Add the connections between the frontal cortex and the limbic system myelinating progressively through late adolescence into early adulthood, and that accounts for some for the impulsivity that ensues. That's an interesting finding to me."

Participant 4 described that while there are important concerns about neuroscience limiting meanings and understanding, there is something helpful, also in the sense of something being real. Speaking about considerations of diagnosing learning disabilities, Participant 4 stated that:

> I do feel that sometimes things do get very simplified. This child has difficulty because of this learning disability. So, I try obviously not to do that…I think that that happens a lot, especially these days…I do think kids get labeled, and I do think that often they're destructive, and I do think that sometimes these labels are quite reductionistic and don't take into account the richness of how children function, but at the same time, I have to acknowledge that there are these very real problems.

Neuroscience as something real that is impacting behavior and formulation is of interest, as a "very real" problem, is again, of interest in thinking about the attribute of realness that neuroscience can seem to bring.

For Participant 5, in considering the impact of a learning disability, described that with the neurobiological information "I can move it [understanding aspects of self-esteem] to even a clearer sense of what the learning disability is about." For Participant 9, the idea that fMRI's, for example, could show changes in the brain, "Maybe that's validation in our work, but I mean it's verification that it's *really* happening."

Similarly, Participant 9 felt that neuroscientific information provided a sense of something concrete and validating. Participant 2 similarly stated that "it's the explanation to the patient; it takes on more of a concrete something they can hang onto." Participant 9 also noted that research showing that something neurobiologically changes in psychotherapy, or had been embedded previously, was again, part of the sense of something "really real" and supports clarity and validation:

> For example, there's an article…that is sort of old; but she [the author] talks about how our neuropathways have heavy grooves in them from our childhood. This was talking about couples and so she was saying that if he's a good selfobject, and something that she hasn't had in her life, those neurotransmitter grooves can be changed in five years, which is pretty amazing. It always struck me…think of what we as therapists can do…I think that's pretty amazing. I think that's pretty important to think about that it's not just surface change. It's really real change.

Themes of something being real, concrete, or something to hang onto overlap with an underlying concept that participants were considering in terms of what was

biological versus what was interpersonal or intrapsychic. In this sense, something that was biologically based, or built-in so to speak, had a described quality of real and concrete.

It is noteworthy, however, that participants did not categorize non-biologic aspects of human psychology as *not real*, and in fact some participants made a point to emphasize the realness of subjective experience. However, there was something important about what some participants saw as a biologic feature of a patient's functioning that was understood as physiological-based, and hence more concrete. The ideas of real or concrete are important to consider, but it is also true that across the board, participants did not categorize human functioning as one or the other, meaning they did not see aspects of psychological functioning as falling into either biological basis or interpersonal/intrapsychic, but that both were important aspects of human experience. These concepts will also be further discussed in a number of following sections that consider overlapping areas such as research, validation, data, and medication.

Moreover, Participant 7 noted the challenge in sorting out what data is helpful or important. The challenge to gauge what is helpful for a "biological kind of data" is complicated. Participant 7 stated that:

> I really bounce around on this…I think in the valuing of the biological kind of data, there's an implicit devaluing of psychological data, subjective experiences, the fantasies, and associations, so I think that's kind of problematic. On the other hand, I'm a psychiatrist, and I believe there are psycho-biologic syndromes that respond best to medication, even though there may be interesting dynamics involved in them.

The challenges of sorting out what is helpful, understood as valuable or important data is a topic that overlaps with this area and will be further discussed in concerns laid out in the subsequent section.

Relief in understanding.

A couple of participants described directly that neuroscience provided some sense of relief for themselves as the therapist. For example, some participants described that neuroscientific information offered a sense of calm or confidence for themselves as therapists through helping them understand something about the patient. Participant 4, who also conveyed concerns about neuroscience, stated that neuroscience could still be helpful in that "it adds some confidence to your understanding, which is not a small matter. I've been clipping articles as I've been thinking about this. There's a lot in the press obviously these days about neuroscientific findings."

Similarly, Participant 5, discussing the impact of trauma on neurobiological function, shared that:

> I would say, that [the addition of neuroscientific understandings] has really been a major contribution for me…that it really helps to avoid impasses, but it can let you understand what's happening, and what they need from you, with that time in a better way. It helps me stay calmer with the patient when I understand. But there is something about being able to understand and think about what may be going on with a patient from a neurological perspective that creates a new sense of calmness and openness I think in the therapist, and their ability to hold themselves as they sit with a very upset patient.

Participant 5 also shared how theories and psychological frameworks are important in that sense of calm and confidence, adding that theories also provide a holding function.

Participant 9 added a similar thought in describing work with a patient, describing that "[the patient] had ADHD. It really helped the case, because it was helping the wife understand some of her frustrations with this guy. Things made more sense." In this case the participant was referring to the idea of "making more sense" as being for both the patient and for the therapist.

While this topic wasn't directly commented on directly as much as other topics, there was also a sense, related to the ideas of neuroscience providing "something real" and helping "make sense of," that neuroscience provided a way of knowing and creating meaning. This is ultimately a larger topic of interest for this study in terms of how information, data, and theories shape meaning and therapeutic direction, and again, will be explored in further sections.

Trauma and memory.

Some participants described how neuroscience informed ways to understand trauma, such as considering how trauma impacts neurological functioning and shapes psychological health. Discussing ways to identify neurobiological changes in brain function, Participant 9 described that, "I don't think that [identifying neurobiological changes] is in contradiction to psychoanalysis at all…Anybody who has seen a patient who has experienced trauma, which is probably all of our patients, can't ignore the attachment issues." Within the interview, it was clarified that the participant meant that

attachment was impacted neurobiologically by trauma, and for that participant, the connection of the two was a given assumption.

For another participant, the connection of neurobiology of trauma was of interest when its connection to memory. Participant 3 stated that "when you get research that shows that the hippocampus is changed in traumatic states and then you get memory problems related to traumatic states which are consistent with what you see in post-traumatic states, that neat." Of interest for Participant 3, was the idea of there being something biological that shapes experience and hence, considerations for treatment process. Similarly, Participant 3 discussed not only how neuroscientific information, in this example as regards to trauma, might impact treatment direction. Participant 3 stated:

> You get these situations where the neuroscience really suggests that a nice psychological theory [meaning psychoanalytic] just can't be right, or it can't be generalized. Same thing with hippocampal damage, let's say. If what gets set off by emotionally stimulating material is hippocampal dysfunction rather than the reawakening of the traumatic memory, then that's a distinct and different theory, and a fair amount of what one thinks of as trauma, response to trauma is simply just understood differently. …[It] shapes the treatment and, of course, it also shapes what you teach.

Participant 2 shared how understanding neurobiologic aspects of implicit memory and trauma enhanced an understanding of how events can trigger memories. Even though this is similar to classical perspectives, the participant felt that neuroscience offered an understanding of working with trauma that shifted the role of a therapist from a more classical, interpretive stance to a more relational position that also considered the role of

regulation in the treatment relationship. Participant 2 described the importance of the *being with*, as opposed to the words of what the therapist says, stating that:

> I think, traditionally, we've put too much faith in our words, that what we say to people is what helps them change, and interpretation is what helps change. And my sense, anyway, is that basically the therapy is two people together, and they create a safe environment, and then one person has the freedom to change. To do something different. And it isn't that you're necessarily doing it to that person, it's allowing something, allowing it to happen.

Overlapping with treatment considerations of affect regulation of affect, in this case the participant describes how the neurobiological aspect of understanding the need for therapy to address regulation (through sometimes non-verbal aspects of treatment), is supported by neurobiological understanding of both trauma and regulation to address trauma.

Another participant discussed a link between neuroscientific understanding and explaining causal aspects of symptoms. When Participant 5 felt neurobiological information in relation to trauma was very helpful, noting that the work of Van Der Kolk and seeing trauma as shaping neurobiological functioning and hence, psychological functioning, particularly around areas of trust, self-concept, and problem-solving. In this way, the participant was describing a perspective that reflects a causal relation between trauma, neurobiological function, and symptoms.

It is also important to note that some participants remarked that even with evidence of the impact of trauma on neurobiology and functioning, that doesn't

necessarily translate to usefulness in psychoanalytic process. For example, Participant 1 explained that:

> I would certainly subscribe to trauma having some direct impact on the brain, as it's part of the body. How could you not? I think attachment and neuroscience, to the degree that I understand it, are descriptive. I certainly think we can see how attachment is developed, and you can test it, you can learn how it happens that someone has a kind of attachment…I think it's important to recognize it. I do think that psychotherapy changes the brain. I've heard Allan Schore speak at times. I don't read in that direction or write in that direction, either. I think it's useful to know about it. I don't think it's ridiculous, or useless, nor not important, or whatever you might say about it, discount it. I don't discount it, but I don't go after reading about it or how I would use it. I don't know how I would use it.

Further, when asked about using and conceptualizing neurobiological impact of trauma in the treatment process, Participant 1 responded that "I actually don't know that I would. It's so individual to the person who's in front of you that it's not like oh, this is what we do with trauma. And, of course, that's the direction that treatment is going. Here's the manual, here's what you do." Participant 1 then added another dimension of thought: "That [early trauma] has an effect on the brain, the body. But you don't remember it. You don't remember it verbally. But you begin to feel something physically. You feel it somatically." When clarified if that meant there is a physical response around the emotional memory, Participant 1 responded "Yes, exactly. That's a good way of saying it. So I don't know where the brain fits in there. But it's an experience of depression."

Themes and questions in Participant 1's comments spoke to the larger questions of this study and reflected similar thoughts and questions from other participants: even though there may be many ways to understand and support an understanding of the bodily, somatic aspect of trauma on the psyche, what is actually helpful in the treatment process and in a session? And further, does that type of information collude and move towards a protocol, manual-based type of treatment direction that is counter to the basic principles of psychoanalysis? For example, in a related comment regarding understanding the neurobiology of memory, Participant 10 stated that "you can't understand psychoanalysis without understanding how memory works, I think," expressing one aspect of the debate in terms of what knowledge is needed. These themes will be explored further in various sections. Additionally, the thoughts of this participant are also noted as an example of how participants were considering complex questions and also trying to make sense of, often in complex ways, how these two areas may or may not fit together.

Attachment.

The basic concepts of attachment, that relationships are crucial and impactful in mental health, are imbedded as a given in all of the participants responses. There was an implicit belief across the board that attachments along with their dynamics, histories, repetitions, and meanings, were central aspects of psychoanalytic work.

In a more direct fashion, some participants discussed the neurobiological aspect of attachment as helpful in understanding their patients. For example, some participants considered the neurobiology of both trauma and attachment as interrelated. Participant 1

had described a perspective in which aspects of attachment are impacted by trauma on a body level. As previously noted, Participant 9 had stated that "anybody who has seen a patient who has experienced trauma, which is probably all of our patients, can't ignore the attachment issues." In this sense, attachment is again understood to have a biological basis.

The place of attachment in psychoanalytic thinking, a topic which historically has had tensions and mixed perspectives and noted in Chapter II, also emerged in the thoughts for some participants. Participant 4, in talking about the mixed response to attachment, considered how attachment had originally been grounded in biology, ethology, and natural science. This participant felt that history, in part, had tied attachment theory to some skepticism in psychoanalysis. However, this participant did believe that it offered something important about understanding the importance and centrality of relationships. Participant 5 also remembered tense discussions around the place of attachment theory.

Participant 9 believed that research on attachment, as it enlightens work with trauma, has become more widely accepted. Recalling tensions between attachment theory and psychoanalysis, Participant 9 commented that:

> I think a lot of people have included attachment work and they don't even realize that that's neurobiological. I mean, if you believe that your early attachment with your early caregivers is the template for your interpersonal relationships down the road…and [you] have to learn how to negotiate those. The more relational we become; I think the more room there is for neuroscience.

It is notable that, according to this participant, shifts in theoretical perspectives towards relational paradigms, which have some overlap with attachment theory, may be a part of influencing views on neuroscience. In this case, understanding relational perspectives as synchronous with, and "giving more room" for, neuroscientific understandings indicate that for this participant, neuroscience shapes attachments and ways of being or negotiating relationships.

Regulation.

In this section, regulation is understood to be specific to regulation of affect and affective states. While not universal, this topic was understood by most participants to have, in part, a biological basis. As a concept, regulation wasn't always easy for participants who mentioned it to also articulate how they defined regulation. This is noted not to point out a deficiency in understanding, but to note that it is a concept that can be difficult to articulate. When asked how one thought about what regulation is, Participant 4 shared:

> That is a good question. It tends to be a kind of a blurry concept I think. And I think it's probably blurry in my mind too, but I put under that the child's sense of safety and security that he can carry with him. I would think about his capacity to calm himself, think about his capacity to use other people to help him calm down.

One area to note is that the participant shared that the idea of capacity could both have a biological as well as interpersonal component, which is similar to other perspectives from most participants. Another participant, Participant 5, noted the similarity of regulation and capacity to the classical idea of ego function, seeing that as also related, in part, to

biology. Participant 5 described that “The other thing is that when we are talking about ego functions, we are talking about a huge impact in terms of thinking about neuropsychology.”

Participant 2 described how that participant understood aspects of regulation in terms of its effect on thinking and states of mental organization. Participant 2 stated that:

> I think about affects, different emotional systems, the idea that those different affects can alter how one thinks, the cognitive developments that if you are fearful, you're not thinking in a discriminating way, for example. Or if you're ashamed, again, you pull back and you just, their thoughts get flooded, but with memories of shame. And your whole way you think is organized by the affect, in a way.

Additionally, Participant 2 saw regulation as shaped and impacted by biology. Participant 2 described a clinical example considering regulation for a patient who could be overrun with affect in the face or disappointment or frustration:

> What’s missing is her ability to manage if somebody says no, manage rage, manage whatever. That’s what’s missing underneath, and that’s what’s driving the repetition compulsion, not the words, not the dynamics, but something about that is much more biological, psychobiological. It’s about affects. It’s about being overwhelmed. She [a patient] has got this strategy that sounds pretty elevated, like he loves her; it sounds oedipal. It is oedipal in a certain sense, but it’s used as a way of trying to cope with an underlying affect, a biological management problem. That’s where I think neuroscience, neurobiology helps.

In this case, the participant is describing an area in which neuroscience of regulation helped shape a direction in the treatment process, the role for the therapist, and a way of being with the patient, and in particular for this example, shifted a classical way of understanding a dynamic.

Participant 3 shared thoughts about a case example in which interpersonal as well biological aspects were considered. “In some sense he’s pretty clearly dysregulated. That is, he and his mother together don’t have a means for reaching a reasonable degree of calm…Obviously one good candidate for that is that the child has some sort of perceptual or regulatory difficulty, that at least initially can be thought of as biological in origin.”

Similarly, Participant 4 also shared thoughts about a case example that considered whether there was a biological or intrapsychic component to dysregulation for the patient, describing that “I guess the broadest differential diagnosis I would be thinking about would be, is this a regulatory problem with the child, is it a problem of anxiety with the mother, and where do those things either meet or not meet?” These examples reflect that there is a question about understanding dysregulation as biological or relational.

In a general sense, participants who mentioned regulation described it as a capacity to tolerate and navigate intense affect versus being affectively overwhelmed, a sense of safety versus panic, and a capacity to use others to get help or soothing versus being alone and unable to calm. For these participants, regulation in this way was not understood to be entirely biologically based, as interpersonal and intrapsychic aspects were understood to be central in the capacity for regulation. However, regulation was understood to be shaped and impacted by biological differences, something that intermingled with, and was shaped and organized by, interpersonal experiences and

intrapsychic organizations. For these participants, regulation has a base in individual biological differences. The frame of understanding it this way is similar to ways that concepts of constitutional or temperamental differences would sometimes get a brief mention in classical theoretical literature as something other than intrapsychic, but more as something that was a biological given. Ideas of considering that otherness will be touched on in sections ahead.

Addictions.

This topic was not typically prevalent in participants' thoughts regarding the larger topic of this study but it did come up for a couple of participants. Participant 1 described that while neurobiological information about addictions may be interesting, it is not necessarily helpful or relevant to the process of the session:

> I think it's very positive that we can show in the brain where the cocaine gets excited, or the alcohol, or that we can confirm what we know. But we know it does something because people get addicted to it, to its use. So, it's like okay, that's interesting. It shows us something. The same thing with having the Strange Situation. We can determine attachment from that. It's very useful, great research. But, you know, I'm not going to put a kid in a room and then have the mother come in and out and replicate it. I'm going to listen to what the mother tells me; I'm going to watch the baby…The brain lighting up with cocaine doesn't help me treat the patient with the addiction. Okay yes, we know that. Wonderful. It gets triggered when you think or dream about cocaine. What are we going to do practically to find out what you're using cocaine for? What is missing? Why can't

you soothe yourself? Why can't you find ways to reduce your anxiety or deal with your depression other than substance use? That's the area that I work in.

Addictions were understood to have a biology related to them, but in general when the topic came up, clinicians found focusing on the interpersonal and intrapsychic meanings more relevant. It should be noted that this topic did not come up consistently and participants may have had other ideas related to addictions treatment that did not come up in the interviews.

Cognition and learning.

Some participants mentioned aspects of cognitive functioning and individual capacities for learning that can impact psychological functioning. Primarily, participants who discussed this aspect were considering the ways that learning disabilities can influence self-esteem and were particularly considerate of the sense of shame that develop for patients. As noted earlier, Participant 9 referenced how understanding executive function challenges helped a couple in treatment. Participant 5, who has some experience with young adults who have diagnosed learning disabilities, described often considering the way "understanding the effect that that [a learning disability] has on the experience of self. So, I almost always do a very self psychological oriented treatment with those students, because I know it comes from these deeply shamed places of self-experience."

For some participants, information about learning or cognitive challenges can shift the path in the treatment process. Participant 3 described a clinical example in which

learning the patient had a learning disability shifted the treatment process from considering some classical psychoanalytic perspectives to a different view:

> He [the patient], of course, had to be perfect at everything. It had not occurred to me until that moment that the shame was not about a sexual matter. It was due to cognitive deficit, which was a little bit subtle, because he was functioning on normal levels. But it was a cognitive deficit in terms of his motor capacities or whatever the capacity is that makes a good engineer that led him to feel so ashamed. At that point, I suggested testing, which he got. There was indeed just a huge disparity. It was 20/20 hindsight. I wish I had understood that when I started the analysis or at some point during the analysis, because I would have stopped harassing this kid about his small penis and started talking about something that was much closer to subjectivity in that.

This participant described that classical thinking was not the primary nor necessarily helpful mode of approach with the patient, nor in the general mode of the participants work per se, but that initially there had been an aspect of considering the patient's shame as related to Oedipal conflicts. The participant described how the view changed when a learning disability was confirmed and that change in view provided an opportunity, as described by the participant, to be closer to a patient's experience.

The connection between neuroscience and individual cognitive capacities was a frequently linked in terms of thinking about where neuroscience might be helpful. Participant 7, who described a number of pros and cons regarding neuroscience, felt that neuroscientific information from the cognitive sciences was an area that seemed more informative for psychoanalysis:

> Cognitive science and neuroscience are kind of fused together nowadays, and I don't know that much about cognitive science, but I know there's all kinds of scientifically studied entities in cognitive science that are probably relevant to us, like how memory actually works, how attention actually works…how emotion is actually processed separate from the hardware of it. Just studying those things with the methods of cognitive psychology, I think, is to me, a much more interesting kind of integration than the neuroscience one. [Note: it was clarified that information from cognitive sciences can also be considered under the larger category of neuroscience.]

Participant 5 noted the similarity to classical ideas of ego functioning as not far from current ideas about executive functioning. "I think when we're talking about executive functioning disorders, I think we're talking about what we used to call ego functions." Further, Participant 5 also found there was a helpfulness in understanding learning and cognitive issues as a way to consider how those perceptions and experiences impact behavior and sense of self and "the way that they construct meaning in their lives."

Development.

Similar to cognitive and learning aspects, some participants referenced aspects of development that are impacted by neuroscientific understanding as helpful to understand patients' history and functioning. As a broad topic, developmental ideas can be implicit within other topics such as regulation, cognition, and attachment. It is discussed here as it

emerged more directly in the data. For example, Participant 3, sharing thoughts about a briefly described clinical example, stated:

> Automatically I'm thinking certain developmental expectations of that child. What I'm going to be doing is comparing those expectations to what the child is actually like and thinking about what the deviations from those expectations are. Being who I am, I'll be particularly interested in the process of change and development. As we're talking, I kept wanting you to tell me more about anything you knew about the child's development, which often at this point, you would have even from the telephone contact. Mom says, "From the moment he was born, it's been difficult," as opposed to, "After his father and I separated last year, it's difficult." I'm also, especially for a young individual, thinking in terms of the developmental narrative that's going to come in.

In this case, the participant is describing an emphasis on considering the "developmental narrative," partly in terms of typical developmental trajectories, but also in terms of interpersonal dynamics and family history, aspects which would be impacted from the physical and neurological level of development. Participant 3 noted that the developmental aspects of brain maturation are relevant to considering certain behaviors such as impulsivity, such as when you consider how "the connections between the frontal cortex and the limbic system myelinate progressively and through late adolescence into early adulthood…and that that accounts for some of the impulsivity that continues. That's an interesting finding to me." In this sense, the developmental information is understood as helpful in understanding a dynamic of behavior.

Trust, as a developmental task, was also seen as having a biological underpinning. Participant 2 described the importance of understanding a capacity for trust, including its biological aspect, in treatment process:

> Well, Fonagy was saying sort of like, "Well, what is it that happens with all these schools that have this kind of therapeutic success?" He goes back to this idea of epistemic trust, that patients come with or without that capacity, and especially with the borderline patients who come who really don't take anything in from you. What they have to learn is to be able to do that, but there are many patients for whom you say all sorts of things and it goes in one ear and out the other. It doesn't mean anything to them. He locates the ability to learn from a therapist as being part of epistemic trust and that what happens then is that the patient is able to learn a mode of working, and it can be any school that works as long as it's coherent and unified and gives some ways of approaching the world…some way of organizing, yeah. When he talks about epistemic trust though, he believes, and he goes back to the researchers who look at this as a biological given. He goes back to biology for this, and that is one of the ways in which I think that neuroscience and neurobiology can really inform how we think about things, how we're thinking about what we're doing, helping us understand what we're doing. We have all sorts of theories that we apply that may or may not be true, and I think that this helps us both be skeptical and both think about it in new ways. That's why I believe in neuroscience.

Here, the participant is talking about the idea of a central aspect of a therapeutic relationship, epistemic trust, as having a "biological given," an idea that considering the

biological aspect helps elucidate and understand a crucial dynamic in the treatment process.

When asked about one's level of interest in neuroscience, Participant 4 focused on the developmental aspect as one area where it could be helpful, but also noted caution in how much importance the biological aspect was given. Participant 4 stated that:

> I'm particularly interested in developmental issues and the ways in which these complex neurophysiological, biological attributes get incorporated into the way somebody functions in the world. That is a lot of interest to me. I feel that I would be curious [about neurodevelopmental aspects], I'd be interested, but I wouldn't necessarily think it was the main thing that I needed to learn. I tend to think of it as a kind of interesting dimension to think about, and the dimension that must always be there, because in the end, we're water and materials, whatever, biology, at our core.

The aspect of what neurobiological aspects of development may add to understanding was noted but it is also interesting to note a perspective that was shared by most participants, that there may be things that are helpful, as we are "biology, at our core," but that there is also an importance in keeping it from becoming the front and center way of understanding patients and approaching treatment.

However, Participant 10 raised concerns that psychoanalysis' perspectives and use of developmental theories and knowledge was weak. Neuroscience as it informs developmental understandings would be beneficial, as psychoanalysis' theories and those that are taught are limited and misconstrued. Discussing developmental theories and

psychoanalysis' use of developmental information, Participant 10 saw psychoanalysis as lacking in developmental information and theory:

> I'm just repeating out loud what everybody already knows, which is that they're just extrapolations from a troubled population by people who have a commitment to a particular way of organizing the data to make developmental stories about psychoanalytic babies, which is, clinically, extraordinarily interesting, helps organize the data, can be emotionally very powerful, but doesn't answer any of the questions about why one versus another or what's actually going on, really, when change occurs in that way?

Participant 10's comments are noted to point to a perspective that more developmental information, which is in part connected to neuroscience, is limited in psychoanalytic theory and literature.

Medication.

As a topic related to neurobiology, medication was understood by most participants to be helpful when indicated. Most participants approached the topic with the view that there may be things about it that are helpful, but there should be caution about over-emphasizing its use and being careful to maintain the focus on subjective experience. Participant 1 reflected that cautious and mixed perspective, stating that:

> I'm not against it, but I've seen a lot of people over the years that have taken antidepressants and it doesn't seem to help their depression. It raises it a little. It doesn't change their internal relationships. Maybe it makes them a little calmer, if they're anxious. But again, they have to say "do you think I need to do this?" and

> I would say, “well, what do you think? I’d be happy to send you to someone.” Usually I want to work with someone a while before I refer.

Participant 1 added that medication may be something that is used as a crutch unnecessarily and too early, such that when given more time in the treatment, and hence more understanding, may mean medication is not needed. Describing a brief case example, Participant 1 state that “I think somebody else, maybe less experienced or thinking differently, would have immediately sent him to a psychiatrist. It’s like, ‘Let’s see what we have here. Are you trying to get my attention? You don’t feel suicidal to me.’ So I’m giving you examples.” In that regard, Participant 1 also expressed that medication may sometimes be for the therapist. “It’s calming my anxiety to send someone to a psychiatrist.” This statement was understood as the inability to maintain calm was related to inexperience, not that a therapist needs to be calmed and therefore the patient should be medicated.

Some participants described emotional overwhelm and an inability to function as potential indicators for consideration of medication. Participant 2 described the use of medication to address anxiety when the anxiety is overwhelming for the patient:

> I mean, obviously, we would say talking does change the frame [meaning frame as psychological organization]. But sometimes, you have to provide something to, I don't want to use the word stabilize, but something to allow psychotherapy to start to work, to change the brain, you know? You provide anti-anxiety medication in order to be able to think. And then once thinking can occur, then perhaps you can affect that anxiety by just the thought processes. But initially, you might have to just treat the anxiety. Because it's too [overwhelming].

Medication is discussed in the sense of “something else” that needs to be addressed beyond what psychoanalytic therapy, at least for a period, can address. The idea of there being something else than what psychotherapy can address, meaning a biological component, is also discussed in further sections ahead as it relates to how one deciphers and formulates behavior and treatment process.

Concerns about the usage of medication were frequently shared by participants. Participant 4 shared that even though there may be benefits with medication, there are still concerning complications. Participant 4 stated that:

> I have a neutral feeling about medication. I feel that it can be very helpful to people in many situations, but I think that people underestimate how difficult it is for somebody to be on medication and the kind of support that they need in order to think about what it means to them. I've seen lots of people who begin to take medication, and then just stop because they don't know why they're doing it or it doesn't work in the way they wished it would. I think people really underestimate how complicated it can be, and the meaning it can have to somebody, and if you can't help them with that, I think oftentimes it doesn't do much good. I think we're lucky to have some of the medications that we have, that are available. I think they're egregiously over-prescribed for children. I think people are being very judicious about using medication with children. They're [psychiatrists] trained differently, and they just want to treat symptoms and it won't work, and they basically teach children how to be drug addicts.

Participant 6 also shared a perspective that reflected a conservative and cautious approach that was common for participants. Participant 6 stated that:

> I mean I try to keep it pretty minimal, but I do have some patients on medication. I do refer to psychiatrists for medication if I feel a patient needs it. That's been going on a long time. I think most analysts have psychiatrists that they use if a patient is depressed, they need an antidepressant, then we have a psychiatrist that will do that. What you're doing when you say that is that there's something there that we either cannot get to, or cannot get to *now*. The medication is needed to put the patient in a position where they can use the therapy more productively.

Such comments reflect the idea that medication is an option to address as a something else factor that, for some patients' mental health, psychoanalysis cannot get to, or as Participant 6 noted, "cannot get to *now.*" Participant 6 did not see the use of medication as point of tension within the field of psychoanalysis and this was a similar view for all participants. "Like as you said, it's been around for a long time. That's not a tension spot. I mean, this is long before the advent of neuroscience, I think. There's always been this sense of some people need medication. And certainly since my career, I think maybe there was the generation before me, maybe. They didn't do it so much because I don't think they had the medications, really."

Likewise, it was noted earlier that Participant 7 had shared a cautious use of medication with a belief that there can be "psycho-biologic syndromes" that indicated using medication. Participant 7's perspective also indicates the something else can be biology, stating that:

> So somebody who has a severe depression, let's say, you can hear material in that you can understand in terms of edification's, and projections, and masochism, and all kinds of important psychoanalytic concepts, but I think sometimes when

> somebody is just in a neuro-biological groove, and the best way to get them out of that is some kind of biological intervention. It's like syndromes, in my head they match a syndrome. I sometimes joke that this person smells like somebody who needs ECT. Or does this person smell like somebody who's going to respond to Prozac. That smell is not always right, but, well, it's pattern matching.

Further, Participant 7 also clarified that use of medication does not mean a failure of psychotherapy, but in fact another aspect that needs to be addressed along with a number of other contributing intrapsychic and interpersonal factors. Participant 7 stated that:

> Anyway, so we're kind of having this argument about what you were saying before, how do we think about medication? Is it just when we've given up on psychotherapy, say for someone with depression, and I was trying to advance the idea that I like to think of these syndromes, these biological variations as *another* ongoing influence that the person has had to contend with. So Ms. X has had an unempathetic mother, and an alcoholic father, and an ADD brain, and those are all things that she contended with in development, and there're internalization's of all three of those things in adulthood, not to mention the ongoing ADD-ness in adulthood. Those are all factors in how she constructs her experience.

Again, medication is considered an aspect of a complex picture and related to something else, something biological that is, in part, something separate from what psychoanalytic, interpersonal, talk-therapy can address.

However, Participant 8 noted concerns more directly in terms of the risks within the interrelation of medication to diagnosis to a medical model to conservative, socio-political power structures. Participant 8 stated that:

> Neuroscience has the potential to do the same thing in terms of, again, oversimplifying and supporting a political energy around power and money. And neuroscience in these cases is about diagnosis, medication, a sort of connecting symptomatology and I'm using that, of course, to a biological underpinning, a biological reason, that being an oversimplification.

Hence, neuroscience, as the larger topic of concern under which medication falls, is understood here as potentiating a serious problem that risks not just an oversimplification of human experience and functioning, but colluding with a socio-political model because it aligns with structures of power and money in our society. These concerns also reflect similar concerns expressed by other participants around the potential for neuroscience to oversimplify and be reductionistic. These concerns and perspectives are further explored in a following section.

Research and validity (positive).

Proving psychoanalysis' credibility was another corresponding component of this topic. A couple of participants felt positively that neuroscientific research benefits psychoanalysis as a way to demonstrate the efficacy and validity of psychoanalytic theory and treatment fundamentals. For example, Participant 3 referred to research being done in understanding consciousness and affective biology as helpful in understanding particular tenets of psychoanalysis such as the unconscious and its relation to affect. As noted

previously, Participant 3 had also found trauma research helpful to psychoanalytic work. “For example, when you get research that shows that the hippocampus is changed in traumatic states and then you get memory problems related to traumatic state which are consistent with.” Overlapping with the topic of a sense real or concrete, Participant 9 commented on fMRI research that indicated psychotherapy produced changes in neurological functioning. “Maybe that validation again in our work, I mean it's verification that it's really happening.” Participant 4 shared a similar perspective:

> So, in that sense, I think that it will be influential and I think the question of the sort of eternal question in psychoanalysis about what makes change possible, how does change happen. Those are things that I think neuroscience may have a way of helping us think about. What are the essential elements of psychotherapy or psychoanalysis that really make it possible to change? And you know, there's the relationship versus insight debate, which seems like a very corny polarity to me at this point. So I think that there are real contributions in that area. But I think the people who have an intellectual interest in psychoanalysis as opposed to a trade school mentality are very interested, in general, maybe not everyone, but in general. I would hope that psychoanalysis will think of itself in that broad way as it moves forward, and it's not just a mode of treatment, but as a way of thinking about human meaning and motivation.

Participant 4 speaks to the idea of psychoanalysis as a broader way of understanding human experience, not just as a treatment modality, and in expressed support for options to show psychoanalysis’ efficacy for change not only as a mode of

valuable treatment, but also as a perspective that broadens our understanding of what it means to be human.

Credibility was described by some as a positive benefit of research and the sense of having information to communicate effectiveness was seen as a positive benefit of such information. Participant 2 expressed an importance to be less isolated from other professions and using neuroscientific information that supports the work of psychoanalysis. Participant 4 also discussed the pull to prove efficacy, stating that,

> I feel that these days, the demand for scientific research that validates things. I think it's overemphasized personally. I was just on the phone earlier today with a potential donor to the institute, who said, I want to know that it really works, and how do you communicate. It's not that this particular donor had any question that it works, but it was, how do you demonstrate to the public at large who might not have familiarity that this is an effective way of approaching psychological problems. You need scientific research to do that. I think that's probably true…It's not my general interest to be that familiar with the research. I do think that there is research that supports it, that supports the importance of long-term treatment as a way of really solidifying psychological change. I think that's really important for people to understand. I hate to call it anecdotal evidence, but the conviction that one has from one's own experience as a therapist or as an analyst seems to me to count for something as well. I still remember a colleague's husband, who was great with word play, and we were talking about the emphasis on evidence-based practice, and he said, really, what we need is practice-based evidence, which I

think is a good way of thinking about it, that there's a lot of practice-based evidence that we need to be able to use to support.

Additionally, some participants found that neuroscientific research was helpful because it could contradict parts of psychoanalytic theory. Participant 2 noted the shifts from classical thinking, stating that: “For example, can an infant have a fantasy of a breast? Is that a possible way for an infant to operate? Does that make any sense? I broaden it [neuroscience] to include development.” In this sense, the invalidation of certain parts of psychoanalytic theory is understood to be positive and constructive as part of the evolution of theoretical principles. Moreover, Participant 3 shared a similar perspective that there can be resistance when “neuroscience strongly suggests that classical analytic theories are simply mistaken.” Concepts of the unconscious, dreamwork, and memory were also noted as an important, psychoanalytic concepts that changed with neuroscientific understanding.

Diversity of ideas.

Some participants felt positively that neuroscientific findings offered different perspectives to psychoanalysis. Diversity of ideas was seen as a benefit even when those ideas challenged psychoanalytic beliefs. On one hand, all participants felt that diversity of ideas in a general sense was positive and all supported the work of different disciplines such as sociology, history, literature, politics, or philosophy. Most participants also noted that diversity within psychoanalytic theories was important, too. For example, participants were in support of training programs that were diverse and inclusive of different branches of psychoanalytic theory. Neuroscience, however, as an addition to

that diversity had mixed reactions. For example, Participant 1 spoke positively of different perspectives and psychoanalytic theories that are taught and utilized in training at the institute the participant was affiliated with, though that didn't include neuroscience. Referring to theoretical approaches at the participant's affiliated institute, Participant 1 stated:

> I think we have a much freer. People are free to go in their own direction, and there's not really anything dogmatic, I don't feel. I think there's a respect for all of the forms of psychoanalysis, so maybe more of a pluralism. I think that's not always been the case, although I do believe that psychoanalysis has broadened from the earlier days, and certainly from the ego psychology, which nobody does anymore—well, no one that I know does…I think it's important to know all the theories. It's only been around for not even 200 years, 150. I think it's possible to know the major theories and how people have built on or changed Freudian ideas.…I think we (participant's affiliated institute) pride ourselves on not having a specific theory. We do not have an orientation that we subscribe to at all.

Broadening psychoanalytic thinking was a common theme for those who saw relevance for neuroscience. Participant 3 found the addition of neuroscience exciting as an addition. "See, I think the real fun comes where what neuro psychoanalytic or neuroscience material does is it simply expands the possibilities you're thinking about." In areas such as memory, participants pointed to insights from neuroscience. Participant 2 described an example of that perspective, considering how neuroscience offers another way to understand the mind beyond language, stating:

> At the time it was new to me, like different memory systems and the fact that life is coded through these experiences, coded through different modalities. That was really interesting. Daniel Schacter, who was the one who talked about implicit memory versus explicit memory, Brenda Milner, all these people who were looking at how the mind works. I guess I always felt like there was more to life than words, and this seemed to expand that.

Participant 2 further described ways that thinking can be expanded around different concepts of memory.

> So, if you think about how would the memory, I mean how the memory part *is*, I think you're aware that all the time, when people talk of associations are sort of like, what is the association? This is a bodily feeling that evokes a memory, or is it a thought that evokes a memory? When you start to think about that, the fact that it could be a different memory system that's operating, I think it's useful in your clinical work.

Participant 4 shared further thoughts about ways the neuroscientific information expanded psychoanalytic thinking. Responding to a question around how neuroscience challenges psychoanalysis, Participant 4 responded:

> Challenging some ideas around the unconscious and the conscious or memory or adding ideas around regulatory capacities versus just defensive structures, that those are really two different things, and thinking about, in a way, regulatory capacities, but also then, I guess, that adds to the ideas of self-states and being in that sort of fight or flight state versus the state where you could consider different options and respond in a more comprehensive thinking, and sort of looking at a

> neurology to that, which again is a shift in psychoanalysis around thinking of a defensive structure that sort of has a meaning that's already put together, like an unconscious thought versus a more affective state that needs some organization. Anyway, that there are things that it has pushed psychoanalysts to think about a little bit more from some of the more classical ideas…I would hope that psychoanalysis will think of itself in that broad way as it moves forward, and it's not just a mode of treatment, but as a way of thinking about human meaning and motivation…So it's interesting to see the ways in which those ideas have persisted and have come to have much more acceptance. But you know, the initial reaction of, but we're not thinking about that. This isn't what psychoanalysis is about.

For Participant 5, neuroscience offered a way to expand diversity of the therapist's caseload and increased capacity as to who one works with. "That's exactly my point, is expanding the variety of people you can work with. You have to be able to integrate new ideas. In order for people to have full practices now, we're seeing that some of the more traditional ways are not working and we have to think about that and integrate. I'm someone who's always believed that diversity makes us more, not less. And that we, in being able to incorporate otherness, we're just better, we're stronger." Similarly, Participant 7, referring to diversity in theories, stated, "that's why I say, I'm sort of a hoarder, I don't let go of any of these perspectives because they're all interesting."

Separate from neuroscience specifically but related to diversity in training, Participant 9 described that the different perspectives that students experience from teachers, supervisors, and practicum sites are all positive.

> That's richness. So, you're hearing from me about this case and from your supervisor there about that case, I mean, the same case, but different, fine. Then take it both in and see where you land and see how you integrate it and see how you feel going forward with it.

Participant 3 also commented that within training institutions, diversity was beneficial and a direction that institutes should purposely adopt for relevancy and evolution of the field. Participant 3 stated that "you need a very diverse group of analysts. . . . Assuming that the chunk of learning occurs within the cohort of students, that means we ought to be looking for really quite diverse groups of people." Participant 3 shared these thoughts in connection to including a wide variety of topics in psychoanalytic education, including neuroscience, but also in terms of purposely broadening student diversity.

Neuroscience Is Irrelevant and/or Problematic to Psychoanalysis

While there was a significant list of areas making up what participants found helpful or relevant to neuroscience, there was also a significant list of concerns and perspectives reflecting ways that neuroscience can threaten core aspects of contemporary psychoanalysis. Participants across the board raised concerns of one type of another and this reflected an important aspect of the topic, that participants were thinking about this topic with depth and complexity. Within this section, a number of categories overlap, particularly reductionism, categorization of human experience, devaluing subjectivity, and problematic aspects of seeking validity of psychoanalytic work. All the categories in

one way or another reflect something about other related categories but are presented here to give voice to specific aspects of each category.

Reductionistic.

One of the most commonly expressed concerns, which was true for nearly all participants, is that the use of neuroscientific ideas seriously risked becoming reductionistic in understanding human behavior and formulating ideas about mental health treatment. There was a common concern that neuroscience could become depersonalizing and dehumanizing. Participant 1, responding to question about depersonalization, stated that "I think it [use of neuroscience] can be. And I don't want to think about the parts of the brain. I want to think about the experience of the patient." However, as an example of the complexity of the topic, Participant 1 also noted that part of the problem is in the potential narrative of separating out body from brain. Participant 1 described the participant's own reaction to a conference speaker, "And she said the brain is part of the body. I mean, what are we talking about? Why would we even be thinking about the brain as separate? From the whole, and treating the person." The comment that separating out the brain and body from the person was notable as part of a theme from the data reflecting concerns about reductionism of human experience, as if to separate out the brain would be to de-complexify the conversation. At the same time, the participant was also more concerned however, that a focus on the body would undermine the focus on the mind and experience.

Proving certain psychoanalytic concepts through neurobiological findings overlaps with concerns about reductionism and narrowing understanding of human experience. Participant 3 described this concern:

> The part of it that goes, "Oh, we found a place in the brain where this or that function occurs or this or that function that is similar to things we're interested in psychoanalysis can be demonstrated in the brain," that has always seemed to me pretty uninteresting for the simple reason that we already know that those functions take place. They're not going take place anywhere else in the brain unless we unless we believe in magic. The brain localization stuff has never impressed me as terrible interesting. I think the extreme example of that is all the excitement about mirror neurons. Basically, if it's true, and it tends to be a bit overblown I think, if it's true that there are specific neurons or neuro sensors that allow us to experience what someone we're interacting with is experiencing, that's, that, to me, is a complete non sequitur with regard to the question of empathy, because I know that people can be empathic with one another and know and have states where they close experience what the experiences are of the people they're interacting with. …The fact that there are mirror neurons doesn't tell me anything more about that than simply the observation that it's true. I don't need to know there are mirror neurons to know that I have the capacity for empathy. That kind of stuff doesn't thrill me much.

Similarly, Participant 3 spoke to the skepticism of the excitement of neuroscience as, again, a sentiment that reflected a concern of reductionism. Participant 3 stated that:

> There're bunches of people who are kind of in this area where they're interested in the neuro-mechanisms as they relate to subjectivity. There're some problems with that because what tends to happen is that people get so dazzled by the science that they tend to overdo it. John Gedo was absolutely convinced that neuroscience was the answer…He just kept saying, "Neuroscience is the answer." That can get a little tiring.

Participant 3 was speaking to the discussion seeming to end with the idea of locating something biological as proving something about psychological experience, versus considering more complexity in understanding subjective experience.

Participants 6, discussing related issues of validation, expressed the risk that neuroscience trivializes or reduces subjective experience:

> There's nothing wrong with neuroscience. I think it's fascinating, but we're going to say can we validate psychoanalytic concepts by finding the brain process that goes along with that? Then that's where I think it's dangerous because it assumes that the reality is what goes on physically. It equates that physical equals reality equals science. It reduces the experience to a neurological process. It's a reductionism and the reductionism is what's dangerous.

Participant 6's perspective captured what a number of participants described as risks of using neuroscience for validation, that the risk is high for limiting and foreclosing a deeper narrative. Additionally, Participant 7 described a similar reaction to the enthusiasm, but more importantly, described a general concern regarding ways that theories can be used in a reductionistic manner:

So, Mark Solms was here a couple months ago, and very interesting talk, very interesting speaker. And there was a lot of enthusiasm for his ideas, basic affective circuits and things like that. And on one hand I found it very interesting and compelling, but on the other hand I think it can become a metapsychology, like any metapsychology. And you can argue that a metapsychology that's grounded in neuroscience is maybe better than one that's grounded in Freud's fantasies about neuroscience years ago, but I think it still can function in the same way clinically, which is potentially not such a good way, not sure they fully thought this through. But, until somebody comes and says X happened to me, and I began to feel Y, okay? There's a danger that you can find yourself, "Oh, the X circuit got going, and we know that is a biogenetically inherited circuit that everybody has, and it makes sense that you'd be feeling that way." And so, it sort of short circuits inquiry and curiosity. The same way that a bad analyst in the old days would say, "well, this is your id fighting against your super-ego." Which tends to foreclose understanding…Over simplifies, presumes understanding where there is not understanding. I don't think it's psychological because it's not about motivations, and fantasies, and conflicts, it's about some punitive internal force. And you can imagine super-ego, id, ego, in the old days, or it could be something we could demonstrate neurobiologically now-a-days, but I think in a clinical encounter there's a danger it could function the same way. Which is, again, I think in a non-psychological way. I think that's the harder problem and that's the more immediate problem for our work. When Solms came here, I may have talked about this last time, what disturbed me was the enthusiasm for these

> ideas. They are cool interesting ideas, it just seemed like this could be the same as a misuse of Freud's metapsychology in the '40s. You don't want to assume that you understand what's going on because, oh, it's that. Because it could always be much more complicated than that.

The idea that formulation and process will "always be more complicated" than the correlation of neuroscientific findings to know something is an important and relevant consideration that was noted by participants who spoke to concerns and risks.

A related perspective was shared by Participant 4 when responding to the interviewer's comment that "in some of the arguments around neuroscience and research, that becomes a concern, that there's a reductionistic component, things are put into categories." Participant 4 stated:

> I personally just go through the roof when I hear about anger management classes, as if you can teach anger, as if it's a class to be taught, or there's a workbook you can do. That is very reductionistic, and very misguided I think, about how one develops those kinds of capacities.

While perspectives advocating neuroscience in psychoanalysis does not specifically advocate anger management classes or protocol-based treatment, Participant 4 reflects the concern that that type of oversimplified thinking is problematic and a risk inherent in using research to validate a treatment protocol. Similarly, Participant 8 described risks in considering learning disabilities:

> That there are learning problems, I don't diminish that. And there's, like, a trauma associated with learning, such that it becomes difficult to learn how to deal with certain things. But I don't like to invoke a biological construct, when you can use

> much simpler concepts. And where it's a doorway to this you disempower the potential for understanding more about what's going on by reducing it to some processing deficit. That was the end, we're not talking about it. We got a process in which to appoint a processing deficit, whatever, wherever it came from. I would argue in a lot of instances that it comes from some real experience, it's going to affect the kid's performance and self-esteem. And, you know, all sorts of horrible things are going to come. I'm not minimizing it. It's a terrible thing. But what I am arguing for, is that you can, it's a way in which we go brain-dead ourselves by not thinking more carefully about what the antecedents may be. And we just finished the biological assessment. You know, we give them a tutorial that we do this. So, we do this and we do that.

Within this topic, it is noted that there were some participants however who expressed a different take on whether neuroscience was reductionistic. Participant 9, countering the concern of reductionism, stating that it adds to "our rich relational picture." Participant 2 shared that neuroscience could potentially counter reductionism by broadening ways to understand how someone is organizing experience.

Categorization of experience.

While not every participant spoke directly about this category, in one way or another, all of them conveyed that psychoanalytic thinking and practice should counter trends towards limited categorization of human experience or thinking that treatment should follow protocols. A number of participants have been noted previously regarding concerns over the potential for categorizing human experience in a narrow,

oversimplified, way that not only limits understanding, but potentially upholds social power structures. Participant 1 had stated that "someone would say he has like ADHD, or ADD stuff, and I'm hearing more and more of that" and similarly, "it's so individual to the person who's in front of you that it's not like oh, this is what we do with trauma…here's the manual, here's what you do." As noted, Participant 4 had shared that "I personally just go through the roof when I hear about anger management classes, as if you can teach anger, as if it's a class to be taught, or there's a workbook you can do." Participant 6 had stated that "I think it's dangerous because it assumes that the reality is what goes on physically…it equates that physical equals reality equals science." There was a shared sentiment amongst participants that reductionism and oversimplified categorization of any type is dangerous and contrary to psychoanalysis. Neuroscience is understood as potentially moving psychoanalytic thinking in that direction. Participant 7 shared similar thoughts about related aspects of diagnosis, stating that,

> I think there's this sort of humanistic idea of that, rather than thinking of people as diseases, or pathologies, we're all human, we all have self-object thwarted needs and let's see how the clinical process enfolds. Then I think something's lost. Understanding how people are different, how there are certain regularities. You know, nobody's a perfect hysteric, or perfect obsessional, but kind of knowing there are those general categories that people might more or less fall into most of the time. Again, it's not a definitive stamp on a person but I think kind of knowing those syndromes. But there are differences in clinical presentations that sometimes I think get obscured. That kind of point, I think, in part becomes a tension point. Diagnoses, not diagnoses. It's labeling in a pejorative way, or a

> stigmatizing way. That's the danger, and that also people are concerned about being judgmental.

In this case, while Participant 7 shares some potential areas of diagnosis being helpful such as "kind of knowing there are those general categories that people might more or less fall into most of the time," a concern for categorization is also expressed in the need to be more humanistic and not categorizing people in terms of "disease." Participant 7 stated that "it's labeling in a pejorative way, or a stigmatizing way, judgmental" and, that it is "not a definitive stamp on a person."

Describing earlier professional experiences when working with disadvantaged youth, Participant 8 shared concerns about how diagnosis and using neurobiologic definitions of functioning limits important clinical understanding and treatment possibilities:

> Now, most of those kids would be diagnosed as ADHD today. But, this to me, is all bullshit because if they weren't so frightened, if you were in control and you had an idea of what was the matter, they would calm down. Today, that does not exist. Here's a pill. Here's this. Here's that. I've had any number of patients come in and say, "Well, I'm an ADHD." One in particular. I'm supposed to know what that means. What do you mean ADHD? What's the problem? Of course, once you hear about their problem, you can explain it without any esoteric, biological or neuropsych kinds of constructs. They [clinicians and families] would rather think, in a lot of instances, that it's biological that there's something wrong because then it's not my fault. They don't have to do anything. Just get the pill. It simplifies it. Where it [biologic understanding] is a doorway to this, you disempower the

potential for understanding more about what's going on by reducing it to some processing deficit.

These perspectives are consistent with a general belief that categorization and protocols limit how one understands and defines human experience and what is needed in psychoanalytic therapy. Such concepts are undeniably counter to the work of psychoanalysis and neuroscience is understood as supporting that problematic direction.

Devaluing or limiting understanding of subjective experience.

This category overlaps with the categories above but is sectioned out to be able to clarify specific thoughts, perspectives, and nuances related to concerns that incorporating neuroscientific understanding specifically risks limiting or devaluing an understanding of subjective experience. Participant 1 remembered that while at a conference, a speaker "talked about treating the amygdala. And I said you know what? I am not treating an amygdala; I'm treating a person." Similarly, Participant 3 shared the idea that neuroscientific understanding can oversimplify: "Oh, we found a place in the brain where this or that function occurs or this or that function that is similar to things we're interested in psychoanalysis can be demonstrated in the brain, that has always seemed to me pretty uninteresting for the simple reason that we already know that those functions take place," and further that neuroscientific thinking can limit thinking in an "oh, that explains it all" manner.

Participant 6 spoke to the specific disconnect of using biological understanding to understand subjective experience and the specific irrelevance of biological information, sharing that "I mean, anything that helps understand the patient's experience should be

included, right? But how does the neuroscience help understand the experience? It isn't to help understand the patient's experience. It may help know what the physical parallel is that's going on, but it doesn't help you understand the patient's experience." Further, participant 6 stated:

> First of all, if somebody has let's say a physiological disability, what does that have to do with psychoanalysis? You don't analyze it because it's physiologically caused, right? If somebody has a broken leg or whatever, you don't analyze it. What you analyze are the feelings about it. It's not that there's a meeting of the physical and the psychoanalytic, or the neuroscience and the psychoanalytic, it's that whatever the physical cause of the disability is, that's something that would be outside of the purview of psychoanalysis. I don't analyze people's physical injuries. I analyze their feelings about it. That's different; then you're at a psychoanalytic level.

Again, the concern expressed here is that neuroscience has the potential to not only divert a focus on the emotional experience, but also that the data of the biological or physical is not for the work of psychoanalysis. In the context of a specific neurobiological or physical issue, it is the emotional meaning of that physical issue that should stay front and center. In that sense, Participant 6 sees a focus on the biological or neurobiological as a problematic diversion or from what is important.

Reflecting ongoing questions of mind and body in psychoanalysis, how to place biological facts in the work of subjective, psychological meanings is a theme that also was reflected in participants narratives. For instance, Participant 4 noted that neuroscientific perspectives can separate out body from mind in a way that undermines

integration. In other words, there is an ironic risk that was raised in terms of neuroscience leading towards a dissociating body from mind. Participant 4 stated:

> But the other thing that I notice sometimes is patients who might say, my brain told me this. I think, your brain told you this? Isn't your brain you? There's this kind of funny notion that comes out of some of the neuroscience findings and the media about it that your brain does things and the place where it's connected to who you are gets lost. There's some sort of gap there, I think.

This concern is raised by other participants in concerns about the dis-integration of mind and body. This topic will be considered further in Chapter V.

Participant 8 reflected a concern that neuroscience reflects a more general tendency to move away from deeper levels of thinking. “We've killed off thinking more deeply about things. And that's exists personally and exists culturally. As far as culture, we'd like to have simple ‘can do’ answers. We don't do anything else but think in complicated terms and try to find patterns and ways of relating one thing to another that isn't obvious.” Participant 8’s comments reflect an underlying core concept of concerns that neuroscience shifts thinking from the crucial requirement in psychoanalysis to be complex thinkers about subjective experience.

Adds nothing and important information is already there.

A number of participants believed that while neuroscience might be of interest, it offered nothing to the psychoanalytic process. One area where this perspective emerged was regarding neuropsychological testing and whether it was relevant or helpful to psychoanalytic work. For example, Participant 1 shared in a clinical example in which

there was a question of whether the patient had a learning disability, felt that testing was unnecessary. “Because from what he’s telling me, I don’t need a test. He’s got real difficulty following through.” The participant felt the information about the patient was already in the treatment process. Similarly, the participant shared in a different case, the information from a neuropsychological test was again, already obvious or present in the treatment process. Participant 1 stated that:

> I recently had a patient who had had, oh my god, four psychological tests done over a period of seven years, a few years, that all indicated there was some sort of…felt like some kind of psychotic piece. And he brought me all these tests, and I read them. What I discovered just in the first session with him before any of that happened is that there was a lot of dissociative stuff. I picked it up in the first session. There was nothing the test told me that I didn’t already kind of have after maybe three sessions with him in terms of figuring out something’s missing here, something’s not connecting. But that’s more through use of self than it is reading.

Participant 1 did not see information from neuropsychological testing as adding anything beneficial or changing the process and in fact points to the use of self as the therapist as more helpful in assessing what is needed in the treatment process. “I don’t think the information from the testing shaped it [treatment process] other than it confirmed my feeling that something was really dissociated in him.” This participant remembered a time during the participant’s early professional years that shaped that idea, stating that:

> I brought in a psychologist and a neuropsychologist in those days to do some testing. And the psychologist said to me, you know, all this is going to do is

> confirm what you already know about the patient, and you'll get it faster. I can get you this testing, and maybe you get it in six months, you'll get the same information. I really respected that. And this was my first experience. I think one of the things I could say is I would never ask for someone to be tested that I was treating. Not an adult anyway. I don't think there would be a need for it. Now that could be taken as my naiveté, but I've never said oh, my goodness, this test has really revealed something. So I don't need three or four neuro psych evaluations costing $5,000 or whatever they cost for me to figure out what's going on…There's plenty of information. The first session it was right there, and then I had to figure out why am I feeling like, you know, I'm somewhere else.

While this participant shared a number of thoughts about neuropsychological testing, most other participants didn't feel it necessary to have that type of information. Even those in support of neuroscientific information in general did not use testing often and did not see it as crucial. This perspective parallels other perspectives in terms of testing not typically adding anything helpful.

Similarly, it was previously noted that Participant 3 had shared, in terms of knowing specific neurobiological functions existing in the brain such as mirror neurons and a connection to the empathy, that "that has always seemed to me pretty uninteresting for the simple reason that we already know that those functions take place. They're not going take place anywhere else…that, to me, is a complete non sequitur with regard to the question of empathy, because I know that people can be empathic with one another." Participant 6 commented on the irrelevance: "Your experience is impacted by you name it, by the sociology of where you live, the social conditions, right? Whether you're poor

or you're rich, or your socioeconomic status, you name it. Your gender, you know? Your biology, your neurology. So, what?" Participant 6 also addressed this perspective directly in discussing the ability of neuroscientific research to identify areas in the brain that may correlate with psychoanalytic ideas:

> So, they kind of parallel in the neurology, but it doesn't add anything to it. It just says that that's what the neurology is of what he's already describing. To me, neuroscience, when I think of it, I just think it's fascinating. I think it's very interesting to map out the brain and understand what's going on at the brain level when people are thinking or singing, or doing anything. As far as adding anything, it doesn't add anything to psychoanalysis. There's nothing relevant to psychoanalysis. It's a different level, and it may be really interesting. It is really interesting, I think, to try to understand that and to be able to map it out, but there's nothing that it adds. It can't add anything to a psychoanalytic understanding. There's no place for it at all. It doesn't add anything. It doesn't help. The patient is talking and they're free associating and I'm trying to understand the associations, and what the underlying psychological mechanism might be, or the unconscious feeling that the patient is not expressing, or the reference to the transference. How would neuroscience in any way aid me in trying to understand that? It doesn't. It does nothing. It's just another layer you can add on to what's going on if you can figure it out. If you can say it's this physiological process, okay fine, but it does nothing for the understanding of the patient. It does nothing for how to interpret the patient. It's an irrelevance. It's interesting, but for psychoanalysis, it's completely irrelevant. So, for me,

> neuroscience is fascinating. I read as much of it as I can. I'm sure I'm not very up on it. But I find the whole world of neuroscience to be fascinating. But it doesn't have any relevance to what one can do as an analyst. It hasn't enriched analysis in any way. It hasn't improved it or made it worse or affected it. It hasn't in any way delegitimized any analytic data or findings, and it hasn't enhanced anything in psychoanalysis. It's simply another level of human discourse, if you will, which is fascinating and, if one wants to, one can certainly try to correlate that. People do that.

The idea of neuroscience being a fascinating topic but a "different level of discourse" reflects another common and seeming important concern that the two disciplines are separate and the work of psychoanalysis is not in need of that information, nor is related to the important data of psychoanalysis, which already is there in the session room.

Similarly, Participant 8 also questions what is helpful in terms of neuroscience information, stating that:

> Now, there are a couple of ideas maybe from neuropsych that have to do with dreams. So, we know that dreams don't necessarily occur only during REM sleep. Okay. That's something. But, is that useful in terms of interpreting the dream or finding some value in it? Not really. A dream is a dream. There's still stuff in there, whether it occurs during REM sleep or not. We also know that people tend to forget their dreams when they wake up, which they have done that with sleep waves in the lab. And sleep research is interesting because it's probably the precursor to a lot of what people call neuropsych research, when you hook people

> up with the electrodes at night and the sleep waves and stuff like that, it's not the precursor to understanding. But, we find that people tend to forget their dreams, and many years ago, before we might have postulated this had to do with some kind of repression. You find that people generally tend to forget their dreams without necessarily having some active notion of repression. Okay. Is that useful? I don't think so. I don't think many people cared why people forget their dreams or not. In a particular case, it may be of interest why some people remember and some people don't, and why people may forget some dreams and not others in a particular case. But, as a general rule, does it matter a whole lot? It's an interesting finding, but it's not a particularly relevant finding to my practice. What people find on a whim, I'm sure will be of some increasing interest, and although we know a hell of a lot, in the great scheme of things, there's a hell of a lot that's not known about the biological basis of behavior or feeling. Maybe that's a good thing. But, to me, the problem with neuroscience is there's a much larger problem than what people might find or say they find, or think they find, which is political. To me, there's a reductionistic tendency in the field, and I don't mean psychoanalysis. I mean in the field of understanding.

For some participants, Participant 8's comments reflect a perspective that neuroscience might be interesting in and of itself, but nonetheless still lands as something that adds little or is irrelevant and lands with the question of "so what?" More notably, participants, either entirely or in part, felt there was plenty of data within the treatment process without neuroscientific information to be able to provide meaningful and depth-oriented work.

Medical model.

While this was not a topic that participants typically spoke to directly, some participants described concerns that neuroscience pushes modalities of thinking that parallel a medical model or scientism frame. These ideas also overlap with topics that have been already mentioned, such as categorization of human functioning and diagnostic criteria that is reductionistic and too narrow to address the more complex needs for mental health. For example, Participant 2 shared the irony of the description of conferences as scientific meetings, remembering and agreeing with a scientist friend's comment: "It always amused him [the friend] that the meetings were called the scientific meetings, for the psychoanalytic meetings. That they were the 'scientific' meetings. He said, 'What physicist would say that this is a scientific meeting?'" And similarly, while participant 2 found a number of ways that neuroscience could be helpful, Participant 2 also saw the medical model as problematic in terms of the deductive, deterministic way of thinking:

> The medical model is too much certainty, that you identify something and then you cure it, as opposed to sort of having a working dyad out of which something emerges. That's a different model. And people are afraid that when you bring up neuroscience, or biology, that you are imposing some kind of certainty, as opposed to looking for meaning.

For Participant 2, this didn't however, discount the potential for neuroscience as offering something useful to a non-medical model perspective and spoke to the importance of more complex thinking. "I don't think that they're contradictory, I think that they work together, and that one of the things that people are trying to understand is,

how do we make meaning? How do we do that? What are we bringing to experience to make it meaningful?" Similarly, Participant 2 shared the disconnect when neurobiology is the focus.

> I love [colleague who presents on neuroscience and psychoanalysis], but what [redacted] does sometimes is [redacted] talks about how the forebrain is talking to the amygdala as if this were an explanation for something. I think that people respond to that and feel like that is not helpful. What good is that? I think that people rebel against that, and I think they rebel against the medical model, which is this idea that there is some scientific certainty that can be applied to psychological functioning. Of course, training as an analyst, you have to learn to give up that sense of certainty and be open to something new, and so people I think rebel against that idea that seems connected with neuroscience as a science.

The question of psychoanalysis as a science also was noted by For Participant 6, specifically that the idea of focusing on something biological and concrete is both reductionistic and overlaps with a push to define psychoanalysis as a science. Participant 6 stated that:

> What's it like for me to hear the debates? To me, it's a kind of a pathetic way of trying to gain a pretense of what in America is called a science, and it's a very narrow concept of science, okay? Science means something biological, something physical, something concrete…I think this is an effort to try to say, well we can scientifically prove psychoanalysis. By scientifically, they mean we can show the physiological process. It's valid if you can show the physical process. If you can't show the physical process, then it's questionable, which is, in itself, a complete

> myth. It's an American way of [thinking], because we are a concrete culture. We believe in the concrete, in the physical. There's no notion of the science that is not physical.

The concreteness and scientific aspect of anything seen as a medical model is what is approached with skepticism and seen across the board from participants as a potential risk to a core of psychoanalytic complexity. The discipline of neuroscience hence makes its relevance also approached with skepticism and concern. Participant 2 noted that:

> The medical model is, yeah, I mean too much certainty, that you identify something and then you cure it, as opposed to sort of having a working dyad out of which something emerges. That's a different model. And people are afraid that when you, yeah. I think that's right. When you bring up neuroscience, or biology, that you are imposing some kind of certainty, as opposed to looking for meaning.

A related aspect to medial model ideas and the conflicts with psychoanalysis is the use of the term cure. Is psychoanalysis a treatment that cures an emotional ailment? Participant 7 shared that psychoanalysis is not about finding a cure, but helping the patient develop emotional self-awareness, insight and understanding. Participant 7 preferred more helpful terms such as transformative and life-changing. In relation to cure, Participant 7 stated that:

> The same way we don't cure an un-empathetic mother with psychotherapy, right? We don't cure these causal variables, right? To the extent that you can call history causal, certainly to the extent of biology as causal, you don't cure those, you help them to understand how they function in a person’s mental economy in their

> internal world. And like biological things can be made a lot better, a person's interpersonal surround could be made a lot better, but there's these enduring residues of that and that's what people deal with internally all the time.

What is understood here as a goal in psychoanalysis is the improvement of navigating and understanding one's mental economy and the interpersonal surround as they relate to the residues of internal experience. In this sense, it is a different model that a medically oriented goal of cure.

Participant 1 considered the impact of the previous analytic training models in the US in which psychoanalysis was only for MDs, noting that the ongoing direction to widening both candidates and theoretical perspectives was positive. Participant 1 described the long-term trend has opened up different ways of thinking that continue to separate itself from current (and problematic) medical models, stating:

> I think the idea that something is unconscious might make the current medical profession a little nervous, you know, that there's something that we don't know, we can't find, or that can take control of us. …[speaking to the medical model] You know, "let's get rid of the symptoms." What do psychiatrists do? They all used to be psychoanalysts. Well, now they prescribe. Pretty much all they do is prescribe when they find out what's going on. And they don't have training in this direction.

Participant 1 noted the historical shape of US analytic training still has a classical model residue that can parallel problems with a medical model residue. In the push towards expansion of perspectives, Participant 8 noted the cultural and political shaping

that also needs to be contended with, particularly the pressure towards medicalization and the inherent politically conservative model that that a medical model supports.

> Mental health, the mind, but not even just the mind, all human distress, bodily, as well. There's a tremendous tendency toward biological reductionism. This, to me, is a political problem. Because when you move in the direction of biological reductionism or determinism, it's inherently a conservative, or it lines up with a conservative political ideology. We need to say that, and I watch how to label as a conservative group, progressive, liberal, radical, and the whatever. But, what I mean by that is there's an erasure of social and familial and economic causes for the human condition to be the way it is. For instance, many years ago when Ronald Reagan came into office, the first thing he tried to do was to eliminate all research from the National Institute of Mental Health and Health. All the research that wasn't focused on biological determinants of emotional distress. It didn't work. Somehow, they managed to put the money back in there. See, if you don't want to recognize that the world affects you, if you want to reduce everything to biology, then you erase any research. But, it also narrows what you spend money on, what you focus attention on. This is all just bad genes. If it's bad genes, there's nothing to do with the social [situations]. You don't have to fund mental programs. We don't have to fund social services. We don't have to fund housing. We don't have to do anything because there all genes. It's the same argument with intelligence. If it's all genetic, then there's nothing to do. Why bother with Head Start or any of the other programs because it's all genetic. It's all biology. It's the same argument. So, it lines up in a political way. I don't think you can avoid that.

> I think there's contradiction. We didn't get into it from a neuro perspective, what you think. But, I think there's ultimately going to be contradiction, and it's not solvable based on information. It's only resolvable based on an outlook, a point of view about the world and how it comes to be. I think we have to take positions on these things. I don't think it's neutral. I don't think it's science. I think it's bullshit. Neuropsych masquerades around science. This is science, as opposed to scientism. In a lot of the research is complete bullshit. There's a lot of research in everything that's complete bullshit. You can critique medical research.

The lengthiness of this quote was included to note the inter-relatedness of different aspects of cultural, political, scientific, and empirical research as they all have a medical model shape that is counter to the complexity of psychoanalytic thinking and focus on subjective experience. In this sense, empirical research and medical models are understood as needing to be continually questioned and challenged. Aspects of the overlap with medical model concerns and conservative power structures is discussed in the following section.

Aligns with conservative power structures.

A couple of participants conveyed concerns that given the empirical, scientistic, and deductive ways of knowing, the use of neuroscience risks pushing psychoanalysis to align with social and political aspects that are also steeped in black and white, more homogenous, and conservative ways of thinking. Referring to the idea that neuroscience proves something real, Participant 6 had commented, for example, that it "is, in itself, a complete myth. It's an American way of [thinking] because we are a concrete culture. We

believe in the concrete, in the physical." Participant 6 had also commented that "we're going to see can we validate psychoanalytic concepts by finding the brain process that goes along with that, then that's where I think it's dangerous because it assumes that the reality is what goes on physically." The question of validity relates to what Participant 6 shared in terms of equating empirical science as valid, and hence, then non-physical data, i.e., subjective experience, is seen as invalid. Participant 6 stated the problematic view that "it's valid if you can show the physical process. If you can't show the physical process, then it's questionable."

Again, the risk of foreclosing complex thinking is also a theme that is inter-related with concerns. Participant 8 referred to the limitation of complex thinking that neuroscience risks and sees that concern as also interrelated with political concerns. As noted previously, Participant 8 saw this as leading to biological reductionism that lines up with a conservative ideology in which psychoanalysis' inherent complexity and challenge of cultural power structures makes for a contradiction with empirical research. A related point is the use of empirical research as a form of truth and hence an authority. The following section overlaps with this concern in describing the questions raised about what is understood to be real and causal.

What is real and causal? Neuroscience can't say.

Some participants raised the point that neuroscience can't necessarily prove or clarify what is real or causal any better than the other existing data psychoanalytic process. This topic captures many interrelated components of the study's larger questions. Something proven or shown by neuroscience shouldn't necessarily equate with

being or “more real,” and additionally, as some participants expressed, even if a neurobiological fact is real, “so what?” Commenting on the irrelevance, Participant 6 commented that there are many things that impact experience such as social conditions and gender. Neuroscience shouldn’t be highlighted as the important factor above others. Participants who raised these concerns also saw that even beyond the irrelevance, there was significant risk in devaluation of other material as valid or real and that the danger in scientific proof and validation in psychoanalysis is it then undermines non-scientific, non-empirical aspects of psychoanalytic work, as if that is then less valid. Participant 6 further stated that:

> …the reductionism, that is really the pitfall of using neuroscience because that's what happens. I mean, in our society there's such a tendency, if you find something neurological, to say, "That's the reality." I mean, if there's a discrepancy between what psychoanalysis and what neuroscience finds, then, as far as I'm concerned, that doesn't mean that psychoanalysis has to change, or that neuroscience has to change, it means you have to find what is the incompatibility? Why is it there? Maybe one has to change, or the other, or both, but that's an open question. You don't just assume, as I think way too many do, that the neuroscience is the truth and psychoanalysis has to be made compatible with that.

This also notes the concern of automated ways of thinking that would close off deeper ways of thinking by automatically assuming empirical validation is what other types of data have to be measured against.

The epistemological questions that are also imbedded in this concern was also raised by Participant 7 in questioning the larger questions of how psychoanalysis decides

what we know and the potential for narrowing truths in a way that makes a certain theory or perspective the authority. Responding to a question about what, if anything, the participant found helpful at a conference the participant had attended about neuroscience and psychoanalysis, Participant 7 stated that:

> I think, I mean it's always helpful to think about how regulatory processes, like how somebody could be overloaded with some sort of affective state, and I guess to think of that as a real thing. Having a biological understanding of that maybe makes it easier for you to think it's a *real* thing. I'm not sure if that's necessary. So somebody comes to you, and you're talking about something and they get overloaded, how do you understand that overload? Do you understand it as a defense? Do you understand it as some kind of not quite voluntary activity of their nervous system that requires some intervention other than interpretation? So those kinds of questions I think are really interesting and important, and to accept that neurobiology helps us think about that, I believe, that's helpful. But again, even without a neuro-biological foundation, like a self psychological framework, people can jump to the conclusion that someone's in a fragmentation, therefore there was a rupture of empathic connection, and that can foreclose listening to their associations and seeing what their fantasies are, and what you're calling fragmentation is a fantasy of whatever, punishment, or castration, or who knows? I think a lot of these sort of causal theories, I think can be potentially problematic. Whether it's a psychological cause, or a biological cause.

The question of what is causal in and of itself is something that Participant 7 raises to be challenged. Expanding on that point, Participant 7 also considered how the

ways in which one knows something then impacts the way one proceeds in the therapeutic process, how one is listening, stating that,

> I think you have to pick one of those ideas and work out how it changes your listening and talking. I think that seems to be the key to it. These ideas do affect us but spelling that out would be an interesting thing to do. I have this nebulous anxious idea about it but I think spelling that out would be a worthwhile thing to do. It could be a case illustrating how in certain neurobiological idea really grabs you and this is how it affects your listening. This is how it affects what you say to the patient.

Participant 7 raises an important point about the risk of any causal theory limiting how one formulates the process or function or the reason for them, but also paying attention to how the position of one's beliefs and the subsequent ideas of causality impacts treatment process. causal theories that could be used problematically this way. Participant 7 noted that there can be a problem of "leapfrogging" from one theory to another that can also add to confusion. It is a dilemma to both consider causal formulations and not foreclose thinking.

Participant 8 shared the concerns that the desire for validation is also a desire to oversimplify an answer and somehow prove that psychoanalysis is doing something in a culture that equates concreteness with doing, commenting on a misguided belief of psychoanalysis trying to be a science as well as the pressure for probable outcomes that are more typical in cognitive-behavioral therapies. The contradiction of evidence- based practice and the mindset that values concreteness becomes problematically equated with something is real and something is happening and valid.

The search for validation and research is problematic and reductionistic.

Some participants raised the concerns of seeking empirical or objectivist research for validation. Participant 1 had referred to this concern in terms of a classic example of the Strange Situation, stating that,

> It shows us something. We can determine attachment from that. It's very useful, great research. But, you know, I'm not going to put a kid in a room and then have the mother come in and out and replicate it. I'm going to listen to what the mother tells me; I'm going to watch the baby.

The sense of a disconnect between research and clinical process was common amongst participants.

Similar to the previous section, a related topic is that of certainty and what is understood as known. Participant 2 had commented on the idea of certainty part of what creates tensions. Participant 3 had shared that there can also be a risk that "people get so dazzled by the science that they tend to overdo it." Participant 4 had described feeling ambivalent, a push and pull to prove psychoanalysis' efficacy and communicating that publicly, noting the demand to do so even though personally feeling it was overemphasized. Participant 4 noted a more helpful would be "practice-based evidence" This is a perspective shared by other participants in terms of overlapping concerns for the risks of validation but also the emphasis that what is ultimately the important data. For Participant 6, the idea of focusing on proof, which means seeking something that is empirical and concrete, overlaps with concerns in seeking validation and defining psychoanalysis as a science. While these perspectives overlap with themes that emerge in other areas, another interesting theme is the disconnect in trying to translate neuroscience

to explain or understand human experience. In this sense, there is a danger in trying to validate psychoanalysis with empirically derived information, not only because of the risk of reductionism, but also because the disciplines exist in two different epistemological worlds that speak to very different ways of understanding. Similarly, Participant 6 raises the concern of reification of empirical information, stating:

> Now neuroscience per se doesn't necessarily do this, but people misuse it to do this. Neuroscience is just neuroscience. It's just understanding things at the physical level, okay? You say that, well when this is going on, this is the brain physiology that's going on, reifying psychological processes, but people do reify psychological processes by taking the neurology and saying that is the process, okay? That what is really going on here is that this physical thing is happening, the brain processes, that's what's really going on.

Two points are noted: a problematic reification of neuroscience as proving a psychological process, but also the incompatibilities of the two domains. Participant 6 had described the issue of reification of any theory or way of thinking that promotes "this is the way it is," "this is the clear truth." The risk that is described here is based on trying to merge two different disciplines but in a way that the empirical discipline trumps psychoanalytic endeavors and hence devalues the data in subjective exploration.

Participant 7 described the inherent conflict, or impossibility, in trying to empirically prove psychoanalysis' efficacy. Participant 7 stated that,

> When you look at our literature there's very little about results and outcomes. I mean, often our good clinical literature is about really interesting moments, but you don't find out because of this shift that I'm illustrating the patient 10 years

> later is doing fantastically. That [using neuroscience to validate psychoanalysis] gets dangerously naive. I mean, psychological questions that sort of get lost when you see something physically, like "Oh hey, we saw the brain scan so we know that whatever's real or whatever's different." I mean, have they done brain scans of what happens to your brain if you read Ulysses? Apparently, your brain changes, that's ridiculous itself, anything changes your brain. It's like the beginning of understanding something, but people jump on it as a higher level of solid reality than the study of someone's associations, or their behavior in the crux of the situation. That's a kind of a science too, it is an observational discipline. Indeterminate, but something scientific about it. The idea that you do change your mind based on some kind of evidence, and what's the nature of that evidence, and what's good evidence. Is clinical behavior evidence? Are only brain scans evidence?

What is evidence is a complex question and also impacted by the cultural push as noted by Participant 8 and others to simplify, a "tendency toward biological reductionism."

Using the example of how one approaches understanding dreams, Participant 6 discussed neuroscientific research on dreaming and problems with validation, particularly the risk in seeing neuroscience as the decider of what is valid. Participant 6 described:

> You can follow the brain processed of a dream. So, the patient dreams and so you have this physical process that you can map out. That doesn't validate any theory of dreaming, okay? It simply gives you the parallel physical process. It tells you what's going on at the brain level when somebody is dreaming, which fine. That's

> what it does, but when you say it validates it, how has it validated anything? It doesn't need any validation. The fact that there's a physical process that goes on doesn't validate it. Now when you have the physical process, that somehow that makes it valid and the assumption is that reality is what is physical and everything else is a chimera. Then you're validating the chimera and then the real thing is this physical process. That's the reification I'm talking about. What validates a dream is a dream. I'm coming at it from a phenomenological understanding of human experience. I have a way of looking at human experience such that it follows that you're not going to have a neurophysiological level that validates anything. It can't validate it, that you have to take experience on its own terms.

"Experience on its own terms" is a perspective that carries throughout the concerns that participants raise, particularly the risk that it is invalidated or devalued by neuroscience, as if it is, as Participant 6 describes, only a "chimera." In that sense, Participant 8 articulates part of that concern as a "splitting off" deeper understandings of experience:

> You can do both, but I don't think that's the way it functions. Just like APA is developing these "practice guidelines." "Oh, well, a course of CBT" because, that's who does those research studies in psychology. And they put disclaimers out. We don't want this to influence insurance company decisions you know it's just recommendations. And bullshit! You people are in lala land. But this is their way of maintaining power in academic psychology, and thinking that we know better because science is the cutting edge and the people in practice don't know

very much at all, which is the scientism paradigm, but it's, but they got credibility. They get the research grants; they get all the coverage and all of this.

Here, the topic of CBT is discussed, but is part of the larger topic of concern for neuroscience as reflective of problematic, societal, power structures. Participant 8 described the task of research in psychoanalysis as "a fools' errand," one that could be never-ending to prove something, demonstrate something under an empirical notion of proof and hence wider acceptance. Research, validation and the ties to profit or the promise of easy answers and protocols is the inherent pressure that many participants saw psychoanalysis as under and is perhaps a pressure impact or are imbedded in the conflicts that arise within the perspectives towards neuroscience, a topic that is discussed in the following section.

Exploring the Tensions and Related Aspects of Professional Identity

This section will present themes that emerged around participants' experiences and perspectives regarding tensions within the community. While this original question was meant to consider the topic of neuroscience and psychoanalysis specifically, the topic touched on broader experiences and perspectives about professional tensions. For example, a number of participants remembered previous tensions within psychoanalysis, such as the Kohut debates and self psychology theory. It also overlapped with participants' views of theoretical differences and belief systems within the community, as well as ideas about why tensions might arise or exist in the community. The responses from participants reflect that on one hand, the larger tensions made an impression; some participants quickly remembered stories of past reactions. On the other hand, there was

an impression that the tensions were a given and part of what to expect in the culture. This came through in part in the content of the narratives and also through their demeanor in discussing the topic. Nonetheless, as participants spoke about tensions, there was also a notable, non-polarized aspect that ultimately developed in the discussions. In other words, as participants spoke, they often made a point to recognize their own position as their own, were thoughtful about other ways of looking at the issue, and typically left some opening in their thinking to consider other perspectives. This isn't to say that there weren't strong feelings when certain perspectives were shared; but even in those cases, there was typically an underlying respect, not in the sense of the perspective being right or wrong, but a respect nonetheless for colleagues who might have something relevant in his or her different point of view.

Experiences or observations of tensions.

This section will describe participants' ideas around observed or experienced tensions in the community. The topic of tensions brought up both memories of previous tensions as well as ones related to the specific topic of neuroscience. There was a variety of reactions to the tensions. On one hand, there were some participants who described direct experience or observation of tension as uncomfortable or problematic. On the other hand, there were also participants who described some experience with tensions, but didn't seem to focus on that aspect as problematic; they approached it in the sense of seeing it as part of what can happen within a community of theoretical differences. Yet, at the same time, it is noted that participants also expressed thoughtful and less polarized views of the community than the topic can sometimes seem to engender.

The concept of "otherness" was described by two participants and arose around an idea that something unfamiliar or different might feel uncomfortable, threatening, or territorial. This concept was intended in the Kleinian sense. When Participant 5 was asked about the experience of tensions experienced when discussing neuroscience in a psychoanalytic curriculum, responded:

> Well, it certainly has felt tense, and I have felt badly about that. But I think that it is, like you said, the sense of loss of something. That there's a fear about quantifying, and maybe that's because historically, psychoanalysis has always had the tension. Just this whole idea of categorizing things, and the threat that, again, it's the paranoid schizoid position. I think it's about otherness. That, these intense feelings, that there's something out there, and it's bad, and it's going to contaminate me. And I have all the good, and I want to keep it pure. I mean, I think that's one way to think about it. You know, that our experience of otherness can be frightening and feel threatening. As opposed to being able to tolerate thinking about ways that it might enrich us.

Participant 5 related tensions to aggressions, splits, and a paranoid-schizoid position, in that it is "…this tension that goes back and forth instead of a more integrated model of things." Participant 5, as someone who believes there are benefits from neuroscience, felt the tensions and spoke about them in terms of hoping for them to be resolved into more integrated approaches.

Participant 9 had also agreed there were heightened tensions. When asked about those dynamics, Participant 9 mentioned previous tensions in the community, remembering tensions such as social workers being allowed to get psychoanalytic

training, dramatic interruptions during a conference presentation, or those that occurred around self psychology theory, noting that there can be a sense of theoretical positions leading to territorial tensions. Participant 9 referenced the idea of "territorial" and "threatened" reactions to theoretical positions and connected that to observed tensions around neuroscience. Similarly, a number of participants were reminded of the Kohut and self psychology debates. These participants described observing "for or against" tensions, but also were wanting to seek integration and a middle ground approach. Participant 9 also saw that direction as something that relational theory opened the door to, in the sense of being less constricted about other ideas.

A related topic emerged in terms of general change, specifically related to theoretical beliefs. Some participants offered ideas about how they understood the trajectories of change of theories over time. They noted that theoretical changes and shifts are slow, or come with ambivalence. Participant 4 saw that psychoanalysis has a paradoxical aspect of seeking and supporting change, yet also slow and cautious to change. "On the one hand, I think psychoanalysts obviously believe in change. That's what their work is all about, but they seem very resistant to change in another way." Participant 3 noted how there were some potentially unique aspects to tensions around beliefs within psychoanalysis related to change in theoretical perspectives over time. Participant 3 stated: "It's slow and difficult. I think in all fields it's associated with anxiety, because everyone wants to believe they know what they're doing. But in psychoanalysis, I think it leads to a particular tendency to become rigid and angry about other people's points of view." Further clarifying those thoughts, Participant 3 stated that:

Clinicians are day to day faced with situations where they're dealing with people who are in really difficult circumstances. They're asked to intervene to relieve those difficult circumstances. If they do the wrong thing, they can really hurt the person who's come to them. I think that as a result it's very hard for clinicians to tolerate the idea of being ignorant. The stakes feel too high. You talk to psychiatry residents and a patient comes in with depression, they, of course, prescribe an anti-depressant. You say, “Why did you do that?” They'll say, “Because anti-depressants cure depression.” How do you know that's true? They'll say something like, “Well, that's what I've been taught since I was in medical school.” If you press them a little bit, they'll say, “The standard of care is evidence-based medicine.” I'll say, “Yeah, I understand that's the standard of care. You can’t tell me what the evidence is.”…But I'm much more sympathetic than I sound, because this poor resident has this miserable person [intention of “miserable” was clarified to mean “in emotional pain”] and he's supposed, he or she is supposed to do something to help this miserable person be less miserable. Psychoanalysts are no different. That is, the wish to be helpful makes it feel very urgent to know what to do. Usually there's been some form of psychoanalysis or psychoanalytic thinking that's been very attractive, for usually personal reasons. Whether it be to respond in a self psychological manner or need or psychological manner or object relations manner, if you think, “Gee, if I just make the right interpretation or do the right intervention, I'll be remarkably helpful.” That's very powerful, but it's incredibly limited in terms of being free to think about, or to recognize, one's ignorance.

The idea that there is an emotional pressure to cure emotional pain with the "correct" approach is what Participant 3 shares as impacting how theoretical perspectives and their use change over time and the potential for a narrowness in how theories are used. Elaborating similar ideas, Participant 7 noted the related topic of diagnosis as controversial, describing that trying to define human experience in axiomatic ways such as diagnosis, and the limitations and the oversimplification that can come along with that, is a challenge that most clinicians struggle with. Participant 7 described the both the risk at jumping too quickly on information from empirical science as if it hence proves something, but the other difficult challenge in being able to organize and formulate ideas around difficult, emotional situations, leading to a tendency in which "we have passionately held commitments." Again, a pressure to have something scientific and known as a way to guide one's work in clinical process was seen as related to the tensions that can arise, what has to be sorted through and struggled with. Participant 7 is noting the concern that the need to prove something or see something as proven fact because it is empirically based is not a good fit for psychoanalytic thinking. However, Participant 7 also emphasized a thoughtful perspective about that process, that most people are trying to sort through these questions and they are not easy questions to answer.

> The pressure to simplify was again a contributing factor. Participant 8 shared that, I think we don't want to look deeply at what goes on…We don't want to think deeply about things. It's why Freud, you know, he was coming over here, he said, "I'm bringing the plague. And I don't think America is a good place for psychoanalysis."

As a concern that was also discussed in previous sections, the pressure for simple and concrete answers to mental health treatment is in opposition to the main tenets of psychoanalysis. Neuroscience adds a risk of pushing psychoanalytic thing to oversimplify and hence, that is a major point where tensions arise.

On a different note, a number of participants had the sense that the tensions were lessening. Participant 3 stated that even though there has been some resistance to neuroscience when it contradicts some psychoanalytic ideas, commenting that "I think the number of people who will respond negatively gets smaller and smaller." Other participants acknowledged some tension in the debates, but they weren't necessarily focused on it and ultimately didn't feel there was a problematic aspect to it, reflecting what Participant 2 noted, that "there are people who would argue with you that it matters or that it's part of a psychoanalytic education, I think. There certainly are people who would do that. But I don't think there's a lot of tension about that as something that helps us understand in a broader way how people work."

Participant 3 similarly observed that both locally and at larger professional conferences, there is "an increasing interest from people" that seemed to have a "really relatively rapid movement in the last maybe five years toward a greater interest in neuroscience." Participant 4 also observed "that there's a lot, there's interest. I think people are interested. I don't think there were significant tensions." Specifically speaking to questions about what to include in the curriculum, Participant 4 didn't see that there was a lot of tension with that. Participant 4 described that there are varying degrees of interest, noting that on one hand it contradicts psychoanalytic ideas, and on the other it supports psychoanalytic ideas. Participant 4 described that even in the move towards

personal narrative and away from classical ideas (which have bodily, physical aspects in areas such as drive and sexuality), did not necessarily see neuroscience as controversial.

There were mixed perspectives on whether the tensions were significant. Sometimes the same participant would communicate tensions were noticeable, and then at a different point not see the differences as an issue. The impression was that on one hand, tensions could be felt and a sense of territory or sides could emerge, a tone that had been mentioned by most participants at one point and also reflective of some dynamics in the literature. On the other hand, participants also descriptions conveyed that the tensions were not experienced as problematic or of concern, often in the sense of seeing difference and tensions as part of the work.

Fears of criticism in the community.

Some participants brought up worries about criticism when controversial topics such as neuroscience were discussed. Participant 5 remembered a tense time during a conference topic around attachment. Participant 5 stated:

> I belonged to the [International Psychoanalytic Organization] and I remember going to their annual meeting. I can't remember where it was at the time. And they had brought in, people on attachment, brought in the attachment people. I was embarrassed sitting there, because of the hostility in the audience, directed towards these people who were talking about, the way that they were, about the implications of attachment theory. And some of the things they said, made sense to me. And I was, as I said, felt embarrassed that people in the audience were being so rude to them. And now look where attachment theory is. I think it's

> become much more integrated into analytical thinking now, and so it's interesting that, how people have to be so protective of their own identity. And I'm someone who's always believed that diversity makes us more, not less. And that we, in being able to incorporate otherness, we're just better, we're stronger.

Similarly, Participant 9 shared a memory of a time at a conference when a debate got heated and a panel member started yelling at the other panelists, noting that while debates and differences in opinion is good to promote growth, there are times that those discussions go too far, stating that, "in that instance it felt to us, to everybody else, that he was so far off that it was kind of strange." While this was not described as a common occurrence necessarily, the general feeling that those moments happen or could happen came through in different ways in the data.

Again, Participant 5 had noted otherness as a factor that adds to concerns of criticism and heated moments. Similarly, discussing the evolution of psychoanalytic thinking, Participant 3 noted that tensions can also arise out of the pressure to know, stating that "I think in all fields it's associated with anxiety, because everyone wants to believe they know what they're doing. But in psychoanalysis, I think it leads to a particular tendency to become rigid and angry about other people's points of view." Participant 3 commented that the pressure to know can lead to a limitation in sharing one's mistakes and "being free to think about, or to recognize, one's ignorance."

This dynamic is paradoxical to other participants' comments acknowledging the importance of openness to "not knowing" in the therapeutic process. What is highlighted here is a conflict between the idea of not knowing as a therapeutic stance in conjunction with a difficult position to be wrong or not know within collegial discussion. There was a

dynamic, for example, in all of the interviews in which participants made points to share their positions theoretically, the type of training or positions they held and while those were a natural part of the questions in the interview to get information on participants' backgrounds and experience, there was, in every interview, a felt sense of participants needed to ensure that the researcher knew they knew something, had the goods, so to speak. While perhaps a small detail, it is worth considering the difficulty of not knowing beyond the session room and what that means within the professional culture.

Another element regarding about criticism was also reflected in the interview dynamics themselves. Confidentiality was a front and center concern amongst most participants in that participants were often careful to consider who might read their statements and if they might be recognized. For example, seven participants noted at some point in the interviews that they might be recognized because their wordings would identify them and thought about others in such a small community; some were hesitant and wanted to clarify confidentiality and a couple participants even asked that the recording be turned off to briefly to share something they were worried might offend someone. While it doesn't seem unusual that participants would want to ensure confidentiality, it does speak to the sense of the topic being touchy, that there is a carefulness around how one communicates and with who.

Aspects of theoretical paradigms that may have influenced perspectives.

This section will note participants comments that reflected where theory and philosophical ideas may be part of the tensions. This is a complex topic and this section is not intended to dig into the theoretical and philosophical differences as much as present

the perspectives that relate or impact tensions. Further, the quoted and the main ideas extracted here do not necessarily represent the full picture of participants theoretical positions, as much as the reflect tidbits that are extracted because they reflect a theme in a participant's thinking or an emphasis on a particular view that includes ideas about theory, or the use of it. A fuller discussion of theoretical and philosophical ideas will be covered in sections of Chapter V.

Theory and its use in psychoanalysis is a wieldy topic. In the interviews as well as observed in professional, collegial conversations, presentations, or case discussions (many of the ways that colleagues discuss cases in small or large settings), there are ways that theory is used, talked about, given credence, but separately, also lived in. Much of those conversations proceed with assumptions about theoretical beliefs, not necessarily articulated and spelled out. This is noted as a starting point to frame the discussions here around use of theory.

For example, Participant 10 raised concerns about theoretical and epistemological understanding as related to the tensions, noting that in the teaching of theories in clinical training, *the use* of theories is not as thoroughly discussed as it should be in training programs. Participant 10 described that conceptualizing how do understand what we are doing as therapeutic or helping is often loosely held and not easily articulated. Similarly, Participant 7 noted how it is hard to sort out and articulate what psychoanalysis does other than in opposition to another discipline, stating that "I think it's sometimes hard to sort out what our unique perspective is as opposed to just being opposed to pharmacologists or neurobiologist or cognitivists or whatever."

Participant 10 sees the use of theories to know as a motor that can create what is heated in the debates and fuels turf wars about what one knows and believes. He stated:

> I think that's what happens so it gets very heated because sometimes the theory is what we use until we know what's going on because it helps us organize. It makes us feel competent. It gives us a way to parse the data. But once we really know what's going on, we don't use theory anymore. We don't think about theory. We just interact very spontaneously. Yes, it's all informed, but it's well-rehearsed and it's preconscious. So, theory is what we use when we don't know what's happening. And because fundamentally the field design hasn't ever really gotten grounded enough, so we can really talk about what's happening because we do very powerful stuff. But until it can be really operationalized, the power of what we do, I think people have to rely on this kind of tribalism.

A few participants noted the challenges in the way theories are used as explanations but problematically used in the sense that there is not theoretical coherence or understanding. On an individual level, Participant 5 described feeling emotionally threatened as the therapist when a patient decided to try EMDR (Eye Movement Desensitiztion and Reprocessing, a therapeutic technique), commenting that “I remember originally, feeling like, oh, I'm not doing a good enough job or something. I've never had a patient come back and say, oh, I want to continue to work with this EMDR. You know, it's solidified over time that our relationship is more enduring than the EMDR stuff, and so I don't feel threatened by that at all anymore.” The reflection that Participant 5 offered shares a more personal level feelings that can be elicited in the sense of worry, concern,

or threat of a different method or a different theory, out of ultimately, a concern for doing a good job and helping.

As noted, participants had also commented that tensions occur when neuroscience contradicts psychoanalysis or disproves a psychoanalytic concept. Participant 3 further noted the epistemological differences and the sense that the hermeneutic aspects of psychoanalysis doesn't intersect with the empirical aspect of brain science. This was also reflected in Participant 6's comment that "I'm coming at it from a phenomenological understanding of human experience. I have a way of looking at human experience such that it follows that you're not going to have a neurophysiological level that validates anything."

As also noted previously, the concerns for reductionism or ideas that are incompatible with the work of subjectivity in psychoanalysis are also part of the theoretical tensions and quandaries of navigating two differing theoretical paradigms. Participant 7 commented:

> I think of psychoanalysis as a study of subjectivity, a study of psychologic phenomenon. I think in the valuing of the biological kind of data, there's a danger of an implicit devaluing of psychological data, subjective experiences, the fantasies, and associations, so I think that's kind of problematic. On the other hand, I'm a psychiatrist, and I believe there're psycho-biologic syndromes that respond best to medication, even though there may be interesting dynamics involved in them.

As noted previously, Participant 7 had commented that there is danger of using any theory in a reductionistic manner and that is a challenge that is larger than the arena of neuroscience.

The process of evolution of theoretical thinking as slow was also commented upon by participants. Discussing the decades of conflicts over the place of attachment theory as it grew from something seen as irrelevant, not psychoanalytic, a sidebar, to a framework that is now more frequently part of the conversation, Participant 4 observed that there are typically resistances to change, but ideas ultimately persist and change does occur.

Perspectives on psychoanalytic methodology were also raised in considering where neuroscience would be relevant, particularly around formulating causality. For participant 7, this was part of a larger question of considering cause, cure, and how an "observational discipline" proceeded to be helpful. Participant 7 stated:

> I think also what comes down to me is what are you going to say to a patient if you believe that they're dysregulation is because of their genetics? Or if you believe their dysregulation is because they've been traumatized and there's some resolve out of whack? What are you going to say to them as opposed to if you think they're acting dysregulated right now to defend against knowing something? Consciously scrambling their mind or are they mobilizing rage to avoid fear or to avoid tenderness or whatever? That's a different reference.

The impact of how one thinks about the psyche and treatment is an obvious definer of how the treatment process unfolds and the directions it takes. This point is made to consider challenges in formulation and causality that arise in consideration of

neuroscience. As noted by a number of participants, neuroscience potentially changes how one formulates and conceptualizes the patient, the patient's history, what is happening in the session, and how one responds. Furthermore, the questions of causality itself and what psychoanalysis' role or work is in formulating causality, is also challenged.

Broader theoretical questions related to linear and nonlinear ways to conceptualize causality will be discussed in Chapter V. For purposes here, the data reflects that,

1. participants saw theoretical differences as part of the tensions and, at times, uncomfortable hotspots,
2. participants paid attention to the challenges and potential constrictions in using theory,
3. participants were thinking in complex ways about their ideas, even if not speaking theoretically specifically, and
4. where neurobiology fit in to those beliefs was not easily answered.

Areas of insularity that may have influenced tensions.

Insularity emerged as an interrelated topic. It was not a theme that was asked about directly, but came up organically in related questions about the emotionality of debates or when participants shared perspectives on neuroscience in training and curriculum. This section discusses broader dynamics that participants saw as possible factors impacting the tensions and debates around neuroscience, but participants spoke of them in terms of the larger scope of dynamics in the field, not just related to

neuroscience. Participants had differing ideas on insularity and its impact on belief systems, such as the way theories and clinical beliefs are taught, a sense that an historical lineage was passed down in different ways that can influenced beliefs, and the complicated emotional nature of the work. Again, participants were speaking to the larger dynamics in the field, not necessarily specifically to tensions around neuroscience, though they saw it as related to the nature of those tensions. While these dynamics may seem peripheral to the general topic of the study, they were themes that emerged from the majority of participants, often unexpectedly. The themes discussed here were understood to be part of the dynamics in tensions themselves and will be further explored as related to the larger topic of the study in Chapter V.

Insularity in the community or training.

A number of participants noted that some institutes and training structures tend to be insulated in their approaches. Participants shared different ideas about why they thought that could happen. Participant 1 commented that "Most institutes are inbred. Jim teaches Bob, Bob teaches Suzie, so Suzie does what Jim did. And you'll find that in other institutions. I think we've made it that way, unfortunately." Participant 10 expressed a concern regarding insularity as it related to the ways theories were taught, discussed, and utilized. Participant 10 commented that there is a problematic use of theory, which is passed down in an insulated culture, and is missing a more intensive understanding of the theories themselves. Participant 10 was concerned this was a factor in why psychoanalysis could be equated at times with a religion.

Participant 1 noted that the insularity is something that has historical roots in psychoanalysts only being MDs, but that when that changed, there has been a positive shift to opening up to more theoretical perspectives. Participant 1 believed that the current state of training institutions, and the one the participant was affiliated with, was more pluralistic in its theoretical focus, but that old ideas, some influenced by medical training, could still shape and impact the thinking and the culture within the organizations. Participant 5 also noted the impact of psychoanalysis' training history being only for medical doctors as a reflection of something being guarded, that while not as it was in historically, still is a current theme. Participant 5 stated that: "Well, it's interesting if we just think about psychoanalysis in this country. The way in which it was so tightly guarded by the medical community, unlike Europe. I think, that we're seeing a huge, huge shift in that way."

Participant 1 also wondered if another component of insularity was that "there may be a bit of narcissism, like we think we have something that no one else has." This is similar to a comment from Participant 10 and others who also noted "turf wars" and the emotionality in the attachment to theory, commenting that therapists are,

> constantly having to make really significant judgements, and the natural thing to do is to circle your own wagons and promote your own point of view as strongly as possible, which is reassuring. Because if you believe what I believe then I can believe what I believe more strongly.

Participant 3 also commented on this topic, relating the constrictions in thinking to the nature of the work, noting the importance of a capacity to "play" with ideas

(instead of positioning oneself rigidly) as a capacity or position that is hard to enter or maintain. Participant 3 stated that,

> Clinicians, all day long are under enormous pressure to do the right thing for people because people come to them in varying levels of desperation, okay? All the way from being actively suicidal to just unhappy and miserable. The clinician then is under enormous internal pressure to know what they're doing. The opportunity to feel playful is very much limited for most clinicians. The result is that clinicians hold on to their theories, whatever their theories may be, much more vigorously, and find it much harder. It's one thing to say, to sit around and argue, "Are there two kinds of aggression?" Think about that and think about what part of the brain's involved. It's another thing, let's say, to go back to your example of arguing with a spouse. A patient comes in and says, let's say they have a little bit of insight, so they don't blame the spouse completely. “I just became so enraged, and I was afraid that I'd become violent, so I had to run out of the room, which was exactly the wrong thing to do because my marriage is falling apart. Doctor, help me.” If the clinician sits there and says, “Well, I wonder what kind of rage we're dealing with here, and what part of your brain would be lighting up.” You'd have to be inhuman. You have to feel. Clinicians then tend to have to believe in their theories to a greater extent, and secondarily, they're more resistant to changing their theories or even thinking about their theories.

The nature of the work was noted frequently as related to constrictions in thinking and while that may seem obvious on one level, it is on another level of interest to larger

themes of the study in relation to belief systems and use of theory. This topic will be discussed further in Chapter V.

Some commented on other ways that belief systems are handed down. For example, some participants commented on the impact of one's own therapy itself as important in shaping one's perspectives and belief systems, an area that participants saw as potentially having a connection to insularity and challenges to expand thinking. Participant 2 noted how the direction for training that this participant took was influenced by the participant's own analysis. "It felt natural, but I guess my analytic heritage was that my analyst was interested in that, too. That obviously, it was accepted. I mean, if I had been in analysis with a self psychologist, I probably would've gone a different route." In this sense, Participant 2 considers the impact of one's analytic or therapy experience as influencing one's theoretical perspectives. Similarly, Participant 4 noted how the very personal experience of one's therapy is also a particularly influential shaper of how belief systems are transmitted, stated:

> I do think that psychoanalysis has, in addition to its Freudian roots, or its roots in Freud, not just Freudian theory. It's also transmitted in the most personal way you can possibly imagine, through one's own experience in analysis. So then you develop a kind of loyalty to that way of thinking, or a particular way of thinking or talking about things, even if it's not particularly theoretical.

The ways theoretical and clinical ideas were passed down within the professional culture was noted by a few participants. Dynamics and themes related to the cultural shaping of training organizations as they impact belief systems and the attachments to them are also discussed in Chapter V.

The modality of working independently was a factor that a number of participants noted as adding to rigidity. Participant 3 stated that “in other intellectual disciplines, one of the cures for this kind of rigidity is that if you're in the physics department, let's say, you have other physicists around. You have to interact with them. In the psychoanalytic world, especially with the kind of authoritarian educational system we have, you can pretty much fail to interact with anybody who thinks differently from you.” Participant 9 also noted the ways that working independently also impacts supervision and case discussion, commenting that, there can be a sense of rightness and wrongness in supervision that can belie the complexity of the actual process, the layers involved in what the supervisee is reporting, and a paradox of commenting on the work when the only two people actually in the situation is the supervisee and the patient.

To summarize, a number of factors were seen as impacting insularity and rigid thinking: a) psychoanalysis’ history in terms of founding fathers and medical model ways of thinking, b) lineages that carry through training and personal analysis or therapy experiences, c) modalities of working independently, and c) most notably expressed, the emotional intensity and complexity of the work. Participants noted these factors as related to larger dynamics in psychoanalysis, but also as factors that impacted the discussions and tensions around the specifics of neuroscience’s relevance.

Collaboration.

This section will present participant responses to collaboration. As the use of neuroscience potentially requires, to varying degrees, consideration of information from disciplines outside the realm of psychoanalysis and participants were asked about their

use of and ideas about collaboration. Participants were asked about using collaboration with professionals from other disciplines as part of treatment and formulations, such as neuropsychological testing or most overtly occurring when considering use of medication. It was also a topic that organically also led to comments about general collaboration with colleagues within the field, such as an individual therapist collaborating with a couple therapist. While participants ideas are not surprising and tend to follow general practice amongst psychoanalytic clinicians, they are noted here as part of an exploration of specific aspects that relate to neuroscience (which may require some cross-discipline collaboration), and themes that emerged around general perspectives towards collaboration that may reflect interrelated dynamics in the tensions. Further discussion of those themes is covered in Chapter V.

In general, participants did not collaborate or did very little collaboration. If there was collaboration, it was primarily regarding medication and the way that participants described that form of collaboration was also minimal. Similarly, referrals were minimal and again when they did occur, were primarily around medication.

Participant 1 commented that collaboration was rare and mostly occurred around speaking with a psychiatrist per the patient's or psychiatrist's request, but was not something that was typically sought out. Collaboration, in general, was noted by most participants as tricky and potentially problematic, particularly due to privacy issues. Participant 1 shared that, "even when I was doing couples therapy, which I'm no longer doing, I found it not very helpful to talk to either the partner's therapist or the couple… it becomes way too complicated, I think, about how I'm feeling and what I'm having to shift through their countertransference, for example." Similarly, it was common that

participants did not see psychiatric referrals for medication as front and center and usually came out of a request from the patient. Psychiatrists were not necessarily seen as a collaborator and if so, was minimal.

Participant 4 noted that in terms of neuropsychological testing, it was not something that was sought nor necessarily illuminating when it was done. Participant 4 did find that in those cases, testing was helpful to ensure the patient was getting the support that was needed, as opposed to illuminating something about the patient or the treatment process. This was a typical perspective from other participants. Conversely, Participant 2 described a case in which the patient shared "I feel like when I read fiction that I just don't get it. I just don't get it. Other people talk about all the things that they see, and I just don't get it." Participant 2 found that referring the patient for neuropsychological testing was very beneficial. Participant 5 added that while it was minimal, would sometimes suggest testing to clarify learning challenges.

Participant 10 was one of the few participants who approached the topic of collaboration with enthusiasm. While Participant 10 commented that the primary use for collaboration (outside of other psychoanalytic professionals) was around psychopharmacology and neuropsychological testing, did comment that "the more the merrier," a perspective that stood out as unique compared to other participants' responses.

Themes Reflecting the Place of the Body

This section presents the data focused on considering where the body and the physicality of human biology land in terms of participants' perspectives and thinking

about psychoanalytic work and the psyche. While ideas of the body and neuroscience are two different categories, participants' comments often overlapped between the two and therefore larger considerations of the physical self, biology, the body, and neuroscience (with some overlap in how the terms are used) are included here. While there is overlap to ideas of how neuroscience is helpful presented in the first section, this section pulls back to take a wider view at the ways participants are considering the body as related, or not related, to psychological organization and functioning. It is also noted that these may not reflect the entirety of ways that participants would speak to the place of the body, the physical, or neuroscience in psychoanalysis. This presentation is of themes that came up across cases as related to specific topics and are extracted because of those links across cases or to other larger themes.

In a general sense, the ways that neurobiology impacts one's experience of self and the world, as a potential shaper of psychological meanings, was a common area where ideas emerged about biology as involved in psyche. When asked about what might be helpful from neuroscientific perspectives, Participant 4 spoke to an understanding of regulation that neuroscience offered, stating that "I think what it did was it opened my eyes to some understanding, some confidence in thinking about emotions and emotional regulation…and feeling that there were ways to understand this that supported a kind of analytic vision of how people experience and make meaning of their lives." The body as "meaning-maker" is the general theme amongst participants who found something useful from neuroscience. Participants who tended to not see neuroscience as helpful, there was still some, though skeptical, consideration of ideas about experience related to the body or neurobiological aspects as having some impact.

Participant 1 also pointed out that as the therapist, neurobiology is not necessarily part of the dialogue in the therapy. Affective experience was ultimately the focus. Participant 1 was asked if that might also be part of the narrative in therapy, answered that "no, not particularly for me because what I think I see with the adult is they're playing out patterns that started very early and we can just put those pieces together. And then it's really about what do we do with those patterns. How do we change those so that you're not living out this history, in some cases very traumatic histories, that you continue to create in your life without knowing it or being able to control it?" The use of ideas or information about the body or neuroscience was typically not something that was discussed in sessions with patients, even when it might be on the minds of the therapist. While some participants noted some times when there might be a discussion in that direction (i.e., discussing a learning disability with a patient) was infrequent and untypical.

Participant 4 noted psychoanalysis' history in considering individual constitutional differences, stating that "Freud always talked about the constitution, and the temperamental issues and all that. So, there was always a nod to these constitutional biological factors, we just know more about them now." Nonetheless, issues of temperament, in the sense of individual constitutions that may impact psychological functioning, still has a wide scope of possibilities and a wide scope of perspectives as to its relevance in the session room. For all participants, information about the body and how it is used is clearly a complicated topic. Participants noted that while there are important and helpful elements in considering the body, there are equally challenging questions.

Biology and neurobiology as connected to psychological functioning.

When describing the ways that neuroscience might be helpful, a number of themes that indicated a sense of biology and neuroscience as a factor impacting psychological functioning. This section will describe ways in which participants' descriptions connected those aspects.

Embodiment and the body is there.

One area in which the body emerged in participants' thinking was the idea of a physical, biological response to affective experience (such as abuse or neglect and its impact on neurobiology), or the converse, an affective or psychological response to a physical aspect (such as self-narratives in the case of individual learning differences). Participant 4, for example, stated that, "I think what comes to mind is primarily how the brain functions and the different kinds of brain function that affect thought and emotion. To me, that's sort of where neuroscience and psychoanalysis meet." Most participants acknowledged that the body was always "there" in some way, in the sense of paying some role on the psyche, experience, or sense of self. But again, there were variances on the relevance and potential problems to the psychoanalytic process. Nonetheless, the body is present.

Embodiment, as one example, was a concept that was mentioned directly by some, but also an idea that while not necessarily named directly, was mentioned in different ways in the sense of there being a "bodily knowing." Embodiment is understood here to mean the way affective memory has a physicality, a bodily memory or

interrelation between body and emotionality. For example, Participant 1, embodiment of emotional experience was relevant when considering trauma and attachment. Describing a clinical example on the physical responses to affective experience, Participant 1 stated:

> So, when she [the patient] was a baby, her mother was depressed, not there, not soothing, not caring. That has an effect on the brain, the body. But you don't remember it. You don't remember it verbally. But you begin to feel something physically. You feel it somatically. I don't know where the brain fits in there. But it's an *experience of* depression. I mean, it's beyond the point of understanding it, so you start to feel it.

For Participant 1, trauma and considerations of the affective experience have a bodily component and that participant described the body as having memories that could trigger affect. That affect is what is the focus in the treatment, but in a sense as Participant 1 stated, "that it is all connected." It is there, in the body, and is particularly noted as something that is *different* from a cognitive knowing, *different* from a verbal level of the experience. There were mixed ideas of the body being both present juxtaposed with a theme of the body and its impact as something different and other.

Something more than talking.

Similar to ideas around embodiment, there was also a theme of the body impacting something important that was beyond talking, beyond the verbal content. Participant 2 shared a brief example related to when medication might be considered because there is something talking and the therapy is not addressing, something more biological, stating that "I mean, sometimes you feel like you talk about something, you

talk about it, and talk about it, and talk about it. And nothing changes. And you wonder, like, either I'm missing something, or maybe this is organic. This is something beyond just talking." Other participants talked about medication similarly or shared ideas bout times when they had a sense of something more biological at play.

Trust was noted by one participant in relation to having a biological underpinning, particularly as it was understood as overlapping with regulation. Both trust and regulation of affect were noted by some as having an aspect of "capacity" that was neurobiological. These comments are noted because they reflect another common theme of there being something else, which can sometimes be in the sense of a capacity, that was going on beyond the content of what was talked about. This is similar as well to ideas that the experience of the therapeutic process was addressing something that words didn't address and occurred on a more experiential level.

Cognition, perception and meaning making.

Aspects of cognitive and perceptual systems as part of the interface between brain, self, and world were also common themes. Participant 2 described a simple example of cognition and its impact on interaction with the world and the experience of an emotional moment. Describing a simple example, explained a perspective of how individual capacities for interpreting and understanding experience (perception) impacts aspects of self-esteem, Participant 2 shared:

> So, you reach [into a bag] for something and it's metal, you know? But then you find out that it's actually, as you feel it, it's not your car keys, it's a tin cup, you know? And there's an error message that says, "okay, these are not your car keys."

> You either have to change what you're looking for, and decide a tin cup is okay. Or you have to say, “that's wrong, and I have to look for something else.” You have to do an action to look for something different, for the car keys. And that's the constant back and forth in the world. And when you're successful, how does that make you feel, versus when you are not successful, how it makes you feel.

While this is a simple example in the minutia of day to day life, the description of an interface between a biological, cognitive process and a perception of experience, self, and the world is noted as another common theme. Participant 3 also shared a concrete example around perception, describing what it was personally like dealing with cataracts, how the difference in color perception changed for the participant.

> Somewhat silly example. I had cataracts. When you have cataracts after a certain point, the world become sepia. You know? The color goes out. Had I not had that experience myself, I wouldn't have known that. They never taught me that in medical school. The information about what the physical, what the subjective effect of the physical matter is really important to me. Sometimes from descriptions from OT people, sometimes from neuropsych testing, I have this idea of, “Oh, that gives me a guide into the subjectivity.” Sometimes it confuses things or I end up saying that's really not very interesting. For example, in dyslexia when a kid has had some nice testing and the testing says, “Oh, his mirror images are seen as the same.” The lowercase b and d look the same to the kid. By the time the kid gets to me, that is so irrelevant in terms of the kid's subjectivity. The kid's subjectivity focuses around the fact that all the other kids in the class can read and he can't and feels ashamed.

The sense of these capacities as impacting meanings and experience was also described as impacting family relationships. Participant 3 added the complicated interplay between an individual's biological make-up that combine with familial, interpersonal dynamics in unique ways, particularly the significant shame that patients can experience around a learning or impulsivity difficulty. Participant 5 noted that individual cognitive difference such as learning disabilities also impact the parent-child relationship system, describing how for the parent, there is more confusion and uncertainty in understanding and relating to their child, stating that "narcissistically, it's going to be an injury to the parent."

Additionally, neurobiological information, when present in the treatment process, was understood as shaping treatment. Participant 5 discussed how that information shapes the therapist's understanding, describing how in work with young adults, neuroscientific information informed how learning disabilities impacted internal ways of organizing the self, and helped understand "what may be behind that [depression or anxiety], and the way in which that influences behavior and functioning, understanding how that affects them, in terms of the way that they construct meaning in their lives…and the terrible narcissistic injury that that represents." Participant 3 noted a case in which the participant regrets not having understood something neurobiological that was impacting a patient as well as conversely, that there are also times in which that information is much less relevant. For Participant 3, it is "when it [neuroscience] points to things where it makes sense of the psychology," is more meaningful. Participant 3 also shared more thoughts on the way that intervention shifts when considering the biological aspect:

> For example, let's choose the second one. A kid in his early 20s comes in. He's always been kind of impulsive, and he continues to be. Some of his presenting symptoms, let's say, have to do with impulsivity. When he reports something like, "Oh, I just did that. Just did it," and now it's tempting to say or to, as you're going through your repertoire of what might explain this, it's, on the one hand, tempting to say, “Oh, there's some active interference in his thinking. His early life experiences are such that the capacity to think was interfered with in one way or another. And he didn't learn how to think before he acts.” Then your whole approach to him is different. Not that you give up on psychological interventions, but the nature of the intervention is different. If you assume that it's defensive, then, of course, the approach is to analyze the defense, try to free the person from it. With the defensive function lifted to whatever extent, you know. On the other hand, if you have the neuroscience version of it or you think that's what's going on, you can say for the kid something like, “The way your brain's wired, you're not very good at controlled impulses. Since that's been such a pain in the neck to you, I'm going to work with you to learn how to do that better.” I'll be quite directive about what you should be doing or what you might do.

Participant 4 also considered how neuroscientific information might shape treatment process, noting a common theme in which any information will change treatment process and emphasizing the importance of being careful that those ideas don’t also lead to reductionistic thinking. Participant 4 described:

> Yeah. I'm just trying to think. It's hard to answer, because of course it shapes it if I have that information, I'm aware of it. When a kid talks about school or

> something, that would be in my mind. So, yeah, it does shape it. Does it change significantly how I think? I don't think so. It's hard to know…the meaning, what it means to the child to be identified in this way, I do think kids get labeled, and I do think that often they're destructive, and I do think that sometimes these labels are quite reductionistic and don't take into account the richness of how children function, but at the same time, I have to acknowledge that there are these very real problems in some cases.

In these descriptions, participants are sharing ways that aspects of the body changed treatment thinking, not necessarily dramatically, but was acknowledged as a factor in the process. While these comments overlap with ideas that have already been presented, the point here is to highlight the larger theme around a place of the body and neurobiology as a consideration of what impacts sense of self, experience, and meaning.

Reformulating psychoanalytic concepts.

Neuroscience was also understood as changing certain psychoanalytic concepts in ways that attended to the body or neurobiology. Human development itself (specifically physiological development) was also an area where the body was seen as impacting psychological experience but also was noted that neuroscience re-shaped or added to missing psychoanalytic ideas around development, particularly attributes that impact functioning. A couple of participants believed that physiological development should be included as one of the major umbrellas of what impacts mental health. Participant 2 commented that “the umbrella would be a developmental and a sort of neurodynamic umbrella. And so, we look at that you've got a developing body and a developing mind, a

developing brain. And there are challenges that occur as development, as that body, that organism, is developing."

Participant 4 shared that it was helpful to consider aspects of biological attributes in terms of psychological functioning. Speaking both generally but also about learning disabilities as one example, Participant 4 stating that biological attributes get incorporated into the way somebody functions in the world. Memory was another area that participants understood differently due to understanding neurobiology's role, similar to Participant 2's comments on the differences in implicit and procedural memory, which are a significant change from classical ideas of memory's role in repression and defensive mechanisms. Along those lines, Participant 7 commented on aspects of memory and attachment:

> So, we used to think something terrible happens to you, and you can't remember it in the conventional way because you don't want to right? It's a defense. It's too upsetting to think about this, I will repress it, I will disassociate from it, etc. But now there's this idea that either instead of, or in addition to that, your brain gets flooded with cortisol, the hippocampus doesn't work and that…it really is sort of a chemical process, it's not a motivational process, and how do we think about that? How do we fit that in? You get affectively dysregulated; you can't attach as securely. That's crucially important, but seemingly different from a lot of psychoanalysis.

Similar to memory, newer conceptualizations about consciousness were also noted. Participant 2 and a few others described a newer conceptualization developed by

Mark Solms that changes the frame of how consciousness is understood. Participant 2 stated:

> They are basically looking at it from upside down. And if you understand that affectivity, basic affective systems are, by definition, consciousness, subjective experiences in their conscious, that you don't struggle with, then, the hard problem of consciousness. Because you have something in the brain that is associated with affect, which is conscious, felt, known. And so here, he's using what he knows about affect systems and biology, sort of like in a very psychological way, to think about this "what is consciousness?" problem, versus what remains unconscious.

In this sense, what is understood as consciousness is a bodily based, non-verbal, felt experience, which is an idea that reverses Freud's concepts of what is contained in the unconscious. Further, there was not just a perspective of the body and neurobiology impacting the psyche, but a neuroscientific understanding that changed the psychoanalytic lens of understanding how and where impact occurs from that physicality.

The body is present, but not relevant.

Converse perspectives were also noted in terms of considering neuroscience to understand experience and in this way, there is a suggestion of the body and the physical as present but not necessarily relevant. Responding to a case example of a patient with developmental delays, Participant 6 felt that those aspects (the developmental delays) were not necessarily psychoanalytically accessible; this was not to say the patient couldn't be helped by psychoanalysis, but that those aspects were not in the domain of

psychoanalytic work. While Participant 6 felt that neurology does impact interpersonal experience, did not see that understanding of neurobiology help understand what is ultimately relevant to psychoanalysis, the patient's experience. For Participant 8, bodily and neurological factors may be present, but are understood as one of many aspects that shape psychological experience. What is relevant to the clinical situation is the patient's emotional experience and the meanings both in historically and as it plays out in the therapy, not a focus on the neurobiological issues itself. The questions that both Participants 6 and 8 raise focus on what good does it do to know about the neurobiology, and more importantly, in doing so there are significant risks to foreclosing deeper thinking and treatment, as if to say that what is biology is what is real and foremost.

As noted in previous sections discussing concerns, determining causality in a way that oversimplifies experience is what some participants saw as a risk. Participant 8 stated:

> We're addicted to the pattern of behavior and memory and experiencing the world; those pathways are etched pretty solidly. Of course, there's a biological substrate to those pathways. We talk about addictions as a separate entity sometimes, rather than the addictions of our psychology. All neurotic, psychotic, whatever diagnosis we want to give, whatever is wrong with us, psychologically, is an addiction. In other words, we're addicted to the pattern of behavior and memory and experiencing the world, those pathways are etched pretty solidly. It's over-learned and quick firing and everything else. But, does that provide any useful addition to what we know already? That trauma creates patterns of behavior or feeling that are incredibly powerful. And the earlier it happens, the

> more powerful it's going to be because it keeps reinforcing itself. Now, does some neuropsych concept add to that? I don't know, the fight or flight thing. It just puts different words on those over learned sorts of experiences that still have to get sorted out if we're thinking about cause.

Participant 8 continued thoughts describing that even if other therapies addressing the neurobiological level may be helpful in addressing body-based aspects of functioning, they are not the work of psychoanalysis. The work of psychoanalysis is to focus on the emotional and relational dynamics that are embedded in the issue. Additionally, Participant 8 shared that in focusing on something biological as causal, it risks putting an end to the conversation of the emotional context and meanings. Participant 6 similarly emphasized the difference in what was within the realm of psychoanalysis as separate from biology, even though, of course, the body is implicit as part of being human. Participant 6 commented that neurobiology is at a different level, "of a different world" and shared that "as an analyst, all you have to work with is what the patient presents." These comments are to clarify that for a number of participants, the body may be a given in human experience and in the treatment process by the fact that we exist in physical bodies. However, the data of that physicality, or more specifically neuroscience, was not the in the domain of what was relevant to psychoanalysis.

Perspectives on medication in treatment.

While interrelated with neuroscience, psychiatric medication has had an independent trajectory in psychoanalytic discourse. It was a topic that came up in relation to ideas of biology in mental health, particularly as a way to address something else that,

as a number of participants described, the talk therapy route of psychoanalytic process doesn't quite get to. Though medication has been debated historically, participants did not see it currently as a fraught topic or a controversy. For example, all participants felt similarly that using medication should be approached cautiously, but it may be a necessary part of treatment. Participant 1 shared that "I think most psychoanalysts are willing to, if they don't prescribe themselves, will have a psychopharmacologist in their back pockets to prescribe." This was a perspective that was common amongst participants, particularly in the sense that medication is something to platform a struggling patient in order to better access and use psychoanalytic therapy. Participant 2 articulated that perspective, stating that it is helpful as "something to allow psychotherapy to start to work, to change the brain. You provide anti-anxiety medication in order to be able to think. But initially, you might have to just treat the anxiety because it's too [overwhelming]." Similarly, Participant 6 shared that medication should be used minimally and conservatively. The idea of medication as an adjunct when needed, but also something that helps get to something that can't be gotten to, is notable. Medication is viewed as helping one aspect (seen as more biological in nature) in order to ultimately help support, strengthen, or develop the psychological side of mental health, with the possibility of less need or reliance on medication. This perspective was shared across the board amongst participants.

Considerations regarding medication brings with it the complexity of sorting out mind-body questions: separate, overlapping, or one in the same? Participants approached medication with a perspective that there is something separate between biological factors and psychological factors affecting mental health with a sense that there is an overlap

between mind and body, as Participant 6 noted that sometimes there are situations when "somebody is just in a neuro-biological groove and the best way to get them out of that is some kind of biological intervention."

Across the board, while participants saw the benefits of having better and more effective medications than previously, all expressed concerns about the use of medication and approached the decisions conservatively and judiciously. Similar to other participants, Participant 4 shared that while medication can be helpful, there are concerns about overuse, over-reliance, and an underestimation of how complicated the path can be in finding the right fit, if there is one. Additionally, some concerns were raised about the profit-oriented push in the pharmaceutical world in which marketing muddles understanding actual efficacy and supports a desire for easy answers.

As Participant 6 described, "they're different overlapping domains." In that statement, the "different" but "overlapping" ideas reflect a continuation of the mind-body question in trying to understand where the domains of psyche and soma land. Medication reflects one area where that question and general perspectives are enacted.

Differences in Discipline-Specific Language

This section references one of the study's initial question as to how participants responded to the language of neuroscience information. Much of those perspectives were interrelated and covered in prior discussions of relevance. Data regarding this question was ascertained more by listening to participant responses to the larger topics in what they communicated about their interest, their draw to the information, their experiences in workshops or classes, and their general sense of feeling the information was

understandable, helpful, or usable, versus not helpful or usable. Responses followed along similar lines as other topics, that neuroscientific information as a scientific endeavor is “a different narrative” and a sense that neuroscience was “something else,” or to be usable, had to be better translated for psychoanalysis. The sense in talking with participants was that it was not easy to articulate how neuroscientific information could be helpful to psychoanalysis, even for those with an interest in those bridges or who saw clear bridges between the two. It was not impossible, but the process of articulating neuroscientific information within a familiar psychoanalytic language was notably not an easy task. Further, language that focused on neuroanatomy and function was often felt to be unhelpful and didn’t speak to the experiencing subject. Challenges in articulating clinical bridges between the two disciplines may be related to the challenges of what to do with facts of neuroscience, something so concrete, in the context of considering subjective experience and the suspended world of internal realities. These considerations will be discussed in interrelated areas in Chapter V.

Chapter V

Conclusions

This study was an Interpretive Phenomenological Analysis (Smith, Flowers, Larkin, 2009) that explored attitudes amongst a small group of 10 psychoanalytically trained clinicians and educators towards the relevance of neuroscientific understandings in psychoanalytic theory and practice. The overall goal of this study was to explore particular attitudes towards neuroscience. In doing so, there was a natural extension to attempt an understanding of the phenomenon of the tensions and dynamics, and hence create a picture of how that topic and its tensions reflect cultural dynamics within that community. Further, this is not simply a discussion of participants' attitudes in terms of being for or against neuroscience, and while it includes descriptions of what participants see as helpful or problematic, the larger goal is an attempt to understand something about the nature of the debate as a way to understand something about the nature of the community. In this discussion, community is referred to as both the specific professional psychoanalytic communities that participants are a part of locally, nationally, or internationally, and in a sense includes the discourse of the literature. Which community is being referred to will be clarified as needed in the discussions following.

The study was not intended to prove one perspective over another, or argue the points that participants made, but instead to provide observations of phenomenological data and offer reflections and interpretations of that data. These observations and interpretations do not come

without bias. As a phenomenological study, researcher bias has shaped and impacted the direction and framing of the question, the analysis, and the conclusions, particularly being that the researcher is close to this topic. It is believed that that closeness, both in regards to knowledge and involvement in the communities and organizations that participants are a part of, as well as knowledge of the philosophical and psychoanalytic issues, has allowed for depth and unique perspectives that might not be found from a more removed position. Those biases were noted as foregrounding in Chapter II and will be briefly noted in the summary of this chapter in order to frame the overall picture of what is presented, with attention to the subjectivity involved in its creation.

Reviewing Gadamer's framework on hermeneutics and language is useful to frame the discussion in this chapter and the process of formulating conclusions. The endeavor of investigating the complexity of this tension, in part dualistic in nature and in part complex, is an attempt to not only expand understanding, but that within the hermeneutic conversation, to also provide opportunities for a shared understanding. Gadamer writes:

> When a translator interprets conversation, he can make mutual understanding possible only if he participates in the subject under discussion; so also, in relation to a text, it is indispensable that the interpreter participate in its meaning. Thus, it is perfectly legitimate to speak of a *hermeneutical conversation*. But from this it follows that hermeneutical conversation, like real conversation, finds a common language, and that finding a common language is not, any more than in real conversation, preparing a tool for the purpose of reaching understanding but, rather, coincides with the very act of understanding and reaching agreement. Even

> between the partners of the "conversation" a communication like that between people takes place that is more than mere accommodation. The text brings a subject matter into language, but that is does so is ultimately the achievement of the interpreter. Both have a share in it.
>
> Hence the meaning of a text is not to be compared with an immovably and obstinately fixed point of view that suggests only one question to the person trying to understand it, namely how the other person could have arrived as such an absurd opinion. In this sense understanding is certainly not concerned with "understanding historically"–i.e., reconstructing the way the text came into being. Rather, one intends to *understand the text itself*. But this means that the interpreter's own thoughts too have gone into re-awakening the texts meaning. In this the interpreter's own horizon is decisive, yet not as a personal standpoint that he maintains or enforces, but more as an opinion and a possibility that one brings into play and puts at risk, and that helps one truly to make one's own what the text says. (p. 479)

It is in this spirit that the discussion of neuroscience's helpfulness or not is explored. It is intended as a way to play with the narratives and participant experiences and create new viewpoints of understanding the dynamics of a conversation, both between the researcher and participants, all of who are also within local and larger groups of the psychoanalytic community.

The sections following will begin with a general review of the overt and explicit beliefs towards neuroscience's relevance from Chapter IV, and then consider the multiple dynamics that emerged in expected and unexpected ways to tell us something about the

forces that shape and organize those perspectives, as well as fuel or impact the tensions. The first major section will review the ways that participants saw neuroscience as helpful or problematic, considering those perspectives with more depth and in the context of how they interrelate with the other topics in this chapter. The second major section will explore the larger topic of the body as it emerged in the data, both as a symbolic concept and as something real in participant's thinking, with specific focus on how those ideas relate to participants' attitudes towards neuroscience. The third major section will consider the tensions themselves, considering both the philosophical quandaries as well as the cultural dynamics that impact the tensions, with consideration to the way difference is approached in the community and why the topic can be polarizing. As a phenomenological study, the fourth major section will summarize the main conclusions, note the bias and subjectivity as it relates to the gathering of data, the analysis, and the framing of the conclusions, and comment on the larger questions ahead.

Finally, it is noted that these discussions have tendrils into larger philosophical topics of the epistemological and metaphysical questions of how we know and how we determine what is real and known. These larger questions will be explored as they relate to the topic of neuroscience, but it is at best a quasi-philosophical exploration of how such frameworks may shape or provide understanding to the topic. Because this study is intended to paint a picture of the dynamics at play within a small group of psychoanalytic clinicians, their narratives and perspectives are ultimately what is important. For example, exploring participants' perspectives on the quandaries of how neuroscience helps or impedes understanding and what is determined as real, is not meant so much as a philosophical exploration, but a description of their narratives and a view of cultural ways

of thinking for this particular group, with consideration to philosophical belief systems that may be shaping those ways of thinking.

Exploration of the Pros and Cons

Differences in the reactions or responses towards neuroscience had many variations, but at the core, perspectives hinged almost entirely on how much one sees neuroscience as helpful or a problematic to understanding subjectivity, and whether or not it supported a deeper (more empathic and complex) understanding, or a reductionistic view of causality and experience. This section will review data and perspectives previously presented, so while there is some repetition, it is with the intention to understand the ideas more deeply and explore new threads between the themes.

Where neuroscience can be helpful and related dynamics.

To briefly review, the areas where participants conveyed that neuroscience could be helpful fell into the more general categories of trauma, memory, attachment, regulation, and areas of development and learning. Overall, the ways that participants found neuroscience helpful tended to match up with the perspectives in the current literature: neuroscience could help deepen empathy, expand ideas about psychological meanings, add to understanding the patient's experiences through consideration of individual differences in neurobiological make-up, and expand understanding of the impact of experience on neurobiological functioning, or visa-versa. Participants described how neuroscience could help understand bodily and neurobiological aspects of those topics (trauma, memory, attachment, regulation, and areas of development and learning)

and that they were understood to potentially shape (in individual, unique ways) intrapsychic and interpersonal dynamics for their patients.

For example, trauma, attachment and the interrelation between the two was a larger topic that was noted by a number of participants: the way that trauma, both interpersonal as well as the more overt trauma of neglect or abuse, changes neurobiological capacity for trust, affect regulation, and capacity for memory. Participants described that this understanding in turn added another component when thinking about a patient's experience of the therapeutic relationship, of self, of the other, and of one's history. There was a connection made between the experience of and one's individual, biological make-up. Participants described that a consideration beyond the interpersonal and intrapsychic content of the therapeutic process that included factors of individual, neurobiological make-up, impacted the focus or direction that the participant might take in the therapeutic process.

What was of interest to note in the pro perspective was that it shifted a focus from seeing a dynamic as intrapsychically and interpersonally determined to considering something that had become hardwired, entrenched in a particular way, such that it impacted *the way* relationships or feelings are responded to, organized, navigated, and remembered. This is both a subtle but significant shift in formulation, and, as some participants pointed out, it is notable to restate that it drives a difference in how the treatment process unfolds. Participant 3, for example, described how the addition of understanding a learning issue changed the way of thinking about a patient and the course of what was discussed in the sessions. A number of participants also offered examples of how the course of treatment and the direction of the process shifted with the addition of

neuroscientific information particularly because new formulations and understandings were developed.

Somewhat conversely, however, Participant 7 noted the importance of considering any type of information as something that can change the process, the formulations, and the meanings. What the addition of neuroscientific information means from that larger intersubjective perspective of how meanings evolve is an important consideration, specifically how it potentially changes dynamics of the therapeutic process that are specific to neuroscience. This question will be considered in the following sub-sections as it relates to the concepts and meanings which are connected to something bodily, empirical, and from a discipline outside of psychoanalysis.

It is also important to clarify that for those participants who saw helpful aspects of neuroscience and found that it added to understanding something about the patient, they also were careful to assert that those understandings were not derived as a linear answer to causality and formulation. Even though participants did not use that specific language per se, they made a point that they were not seeing neurobiology as the only factor. They offered ideas about the impact of neurobiology as possibilities, often with a questioning tone, and seemed to be purposefully careful not to make a linear correlation between a dynamic, behavior, or feeling and neurobiological aspect. The idea that the addition of neuroscientific information did not provide a predictable connection to causality and formulation parallels what Palombo (2017) described in his book, *The Neuropsychodynamic Treatment of Self-Deficits*, that adding neuroscientific information into the equation, as well as the unique and individual ways that neurobiology impacts the patient, is a nonlinear process. Neuroscientific information does not add a predictable,

linear answer to causality nor to treatment process. Similarly, in the data, while participants again may not have been thinking specifically about the theoretical questions, there was a carefulness to note the addition of neuroscience was not about oversimplifying. In other words, the empirical, more linear way of thinking that is more akin to neuroscientific information did not equate to linear thinking in clinical process. All participants were complex thinkers. In the case of these participants, the consideration of the bio in biopsychosocial was a unique addition of information that differed from other types, and the data also suggested that it re-shaped views on the psycho and social.

Participants also described that neuroscientific information re-defined certain psychoanalytic concepts. For example, participants described re-thinking ideas about memory, or the difficulty with accessing memories, sharing that neurobiological understanding of memory expanded one's understanding beyond thinking of forgotten memories as simply defensive. Similarly, the idea of affect regulation as partly seated in biology changed participants' ways of understanding when patients are overwhelmed by emotion beyond intrapsychic and interpersonal history, and added the consideration of biology as related to *a capacity* for emotional regulation, as something that is shaped individually by one's biology and the sensory or nervous system's capacity to handle, tolerate, or biologically know what to do with affect. Participants described how adding that consideration changes the perspective for both therapist and patient in terms of how one's history and experience is framed. In this way, as Participant 7 pointed out, such ideas have challenged and evolved psychoanalytic ways of thinking about defensive responses or phenomena that shape relational experiences. Changing ideas of what is the unconscious were also noted by some participants as an important psychoanalytic

concept that had been significantly reformulated by neuroscience, particularly the nonverbal "consciousness" of affect.

Many of the specific ways that neuroscience was found to be directly helpful were described in Chapter IV and are fairly straightforward. They will not be reviewed here in detail; instead, some interrelated themes and dynamics related to neuroscience's usage or relevance will be explored in the next sub-sections as they are of interest to the larger dynamics of the usage of neuroscientific information.

Otherness and fuzziness.

An interesting aspect in the narratives is the way neuroscience is held as a concept as "different" and "separate from" the psyche. On one hand, this seems obvious. Neuroscience is rooted in the physical, the biological, and is different from the hermeneutically-oriented narratives of subjective experience, different from the mind, thinking, or the higher-level functioning of making meaning. On the other hand, it seems important to pause and consider that particular dichotomy of physical-not physical thinking. Again, participants noted that neuroscience could offer a way to understand something about a patient's behavior in a way that was *different*, that the physical element was something "other than" the more language-based, psychological-and-separate-from-the-body ways of considering the psyche in psychoanalytic theories of the mind. Biology and the physical were seen as something unique from the intrapsychic and interpersonal narrative aspect of psychoanalysis, however at the same time, not necessarily separate, as it is also understood as something that could impact psychological meanings.

This is a complex dynamic and inarguably not new. The intertwining of body and mind, trying to separate out what is what, and what is relevant, is to state the obvious, the larger exploration of this study. This is noted because the sense of the body and the physical as other, as separate from intrapsychic and interpersonal, has relevance for reactions to neuroscientific considerations. Otherness was implicit in some participants concern or hesitancy of using neuroscientific information (even for those who found neuroscience helpful), or of going too far and moving towards something that "is not psychoanalytic." There was a hesitancy to make sure they were not over-emphasizing biology and an overt emphasis on interpersonal and intrapsychic concerns.

For instance, a number of those participants didn't feel neuroscientific information was something to talk about directly with patients or, if they did, it was in a limited way. There was a cautiousness and carefulness to not over-emphasize biology. The otherness dynamic was also evidenced by an overall narrowness of collaboration and sense of that information being from the outside, a different discipline, and a cautiousness to expanding clinical conversations outside of the field. There are complex reasons why a therapist may or may not share certain types of thinking or information to the session, as well as complex reasons why collaboration is limited or could be problematic. However, it is worth considering a couple of factors that were noted in the literature as well as personal observation that may influence the sense of otherness and the vagueness about neuroscientific findings that then follows. For one, the historical path of psychoanalysis, one which ultimately left the body behind is a factor that seems to still be in the mix, even though such discussions about neuroscience and the body have continued or expanded. Secondly, from a classical standpoint, the visceral, physical self (the id, as an

overt example) is seen as something to be mastered and overcome; it is a lesser, more animalistic part of humanness, as opposed to higher-level thinking and higher-level aspirations of mankind. Thirdly, there is also a history of authoritarian thinking that fosters a sense of right and wrong ways to be a psychoanalyst, a topic that will be discussed in in the third major section, but for purposes here is noted as a community dynamic that can maintain dynamics of otherness.

It is also important to note that the idea of biology as shaping the psyche is not new; bio-psycho-social considerations in the larger scope of mental health have been around a long time in the big picture of mental health. However, within psychoanalysis specifically, the "bio" has had a significantly lesser, otherness quality in the professional dialogue and clinical narratives. As noted in the literature review, psychoanalysis' relationship with the body has had many forms and ambivalences over the history of psychoanalysis.

Within the data, and in line with current literature, the odd place of the body in psychoanalysis still exists and was also reflected by a certain "fuzziness" about the body and neurobiological functioning as related to psychoanalysis. Regulation, for instance, was described and understood to be linked in part to something biological, something hard-wired that could vary from person to person in how they physically respond to affective experience (ideas for instance of why someone might be more vulnerable to being flooded by emotions, that one could have a biological, affective system that is more vulnerable to panic and fight-or-flight reactions to difficult emotions). However, it was a concept that participants could not describe easily, and some admitted that it had an amorphous quality. Some participants are also medical doctors and know the body in

depth; they could easily speak extensively to aspects of the physical. However, in a general sense amongst the group of participants, the data suggested a theme of otherness and vagueness when discussing, conceptualizing, and describing the physical as it relates to the psyche. This is also reflected in the literature.

Across the board, all participants in some way found the body, the physical, and neurobiological aspects as impactful and yet at the same time, quite enigmatic. That quality also relates to the discussion in the previous major section, but is noted here in terms of considering the ways that neuroscience might seem helpful, but where it can simultaneously come with a vague notion of what exactly is the role of neurobiology.

Considered, but not discussed.

From those more concrete areas such as trauma, attachment, regulation, dreams, memory, or cognition, participants leaning towards neuroscience as helpful found neurobiology and the physicality of those areas relevant because they offered ways to understand something about patients' experience and ways of being. Another notable quality of that perspective was that the neuroscientific concepts and perspectives were typically held as an understanding for the therapist; as part of the treatment process, it existed primarily in the therapist's mind and hovered around what was talked about. In other words, the aspects of the physical were not typically discussed between therapist and patient, even if the therapist saw that perspective as helpful.

There were some situations in which participants shared that they might talk directly about a particular neurobiologically-related challenge or dynamic, but this was infrequent and seen almost as a sidebar. Some participants who described that when

something was made clear by neuropsychological testing, such as an executive functioning concern or an attentional issue, that that information might come into the therapeutic process directly with the patient to consider how that impacted emotional meanings and experience, as well as potential strategies in managing those challenges. However, that tack was rare; in general, participants who found neuroscience helpful all said that they either didn't use, or rarely used, that type of information in the direct process of sessions.

Furthermore, the general practice of a psychoanalytic therapist holding certain thoughts and ideas in mind is not unusual in a psychoanalytic process. It goes without saying that there are many times within psychoanalytic process that the therapist mulls one's own thoughts, reveries, associations, and holds information to consider what is most helpful to the process. The emphasis of this point here is not to argue that therapists necessarily should de facto say more of what they might be thinking or formulating, though the dynamic does elicit some assumptions worth challenging. The emphasis is to note an observation of how that particular type of information is used, and to consider that dynamic as potentially related to a history of the body being seen as not psychoanalytic, lesser than, or potentially representing a simple, and hence not complex, way of thinking that is counter to psychoanalysis. And perhaps, maybe the body is "lesser." This point is not to say there is correct equation of what is more relevant or not, but it is to note that even in the current conversations and narratives in which neuroscientific information is valued, the body, as also including neurobiological function, still has a limited place in the psychoanalytic narrative.

Something real and a relief in knowing.

Counter to the ideas of otherness and separateness, seeing neuroscientific information as something real or concrete was also present. Some participants described that this in turn provided a feeling of relief and clarity around a patient's behavior or dynamic. The physicality of neuroscience was described by some participants as providing a sense of something concrete and hence, something known, which felt helpful in providing understanding. Within that clarity, some participants described a sense of calm as the therapist, again primarily due to a sense of knowing, understanding, and potentially being able to feel like one is doing something. For example, a participant described that knowing something about a patient's learning disability was calming, that it helped make sense of a particular patient's self-disposition. This experience was shared directly by a couple of participants. The idea of making sense of psychological history, reactions, and meanings, and the related potential gain of emotional organization, isn't necessarily new in terms of what psychoanalysis offers, but it is worth pointing out that for some participants, neuroscience has provided some understanding towards that goal of sense-making and organizing as well.

Returning to related questions of the study, what is it about a sense of knowing that is supported by neuroscience versus found through intrapsychic and interpersonal models that that makes its use more controversial? From the data, one possibility to consider is what neuroscience has come to represent: that it is other, lesser than, not psychoanalytic, and thus approached with more skepticism as a risk to reductionism. It has come to represent a threat to complex thinking and valuing of subjective experience even though the data suggests it did not impede complex thinking, and also interestingly,

that representation (of neuroscience as having risks) was a concern that was present even for those who valued neuroscientific information. As pointed out by some participants, any theory can be utilized problematically if used in an authoritative, strident manner.

A narrow path for integration from other disciplines.

Another interesting dynamic that emerged was the limited path in which neuroscientific information is brought into psychoanalytic thinking. Even for participants who find it helpful and of interest, there is a narrow way in which that information is obtained and interpolated into a psychoanalytic way of thinking. Most participants didn't collaborate much with professionals who would have more detailed understanding of neuropsychological functions and functioning (such as, but not limited to, educational professionals, neuropsychologists, occupational therapists, or speech and language therapists), or collaborated much at all with any related professional, psychoanalyst or other. This lines up with ongoing and current observations of colleagues and the community. It is understood that limited collaboration is built-in to the nature of the work. Maintaining confidentially is critical for the therapeutic relationship and, for reasons of privacy, the work takes place in an individual, private office. However, it is noted as a factor, and perhaps vulnerability, that narrows dialogue and openness to other viewpoints. Further, clinical discussion of cases within a study group or supervision occur, but that is not consistent nor homogenous in practice.

There are some other insular dynamics that participants saw as interrelated to tensions around neuroscience, such as the dynamics in training institutions and larger forums like conferences. That topic will be also discussed in the third major section. In

summary for purposes here, what is noted is an additional narrowness for opportunities to engage around neuroscientific understandings due to the nature of confidentiality, as it is information that requires collaboration and engagement with professionals outside of psychoanalysis.

Review of concerns and related dynamics.

As laid out in Chapter Four, participants also raised significant concerns about the use of neuroscience in psychoanalytic work. Similar to the core of ways that neuroscience could be seen as helpful, the core of the concerns also revolved around subjectivity and complex thinking, but in this case specifically the risk of devaluing both. These perspectives fell mainly within three larger categories: who can say what is real or fact, concerns for reductionism and oversimplified thinking that devalues subjectivity, and what is determined as within or outside the domain of psychoanalysis. The introduction for this section is shorter than the previous section describing the pros towards neuroscience as the following sub-sections contain the more relevant and pithier discussions of those perspectives.

Who can say what is real or fact?

Contrary to the ideas of real and concrete that were expressed in support of neuroscience's helpfulness, the theme of real and concrete also emerged as a concern, particularly in the sense of seeing neuroscientific information as real and consequently minimizing something about the patient's experience, limiting deeper thinking, and devaluing those aspects of psychoanalytic process that are not concrete. These concerns

parallel larger epistemological and metaphysical questions of the nature of reality, but while these comments have aspects of those philosophical questions, they are not specifically about the philosophical debate as much as a focus on the clinical importance of realness of patient's subjective experience, the importance of their feelings and reactions as valid. These comments were noted specifically in response to the ideas of empirically derived data being accepted as what was real and absolute.

It is also important to clarify that on one hand, there is the epistemological incompatibility of neuroscience and psychoanalysis. On the other hand, there are differences in the narratives of participants that are not necessarily discussed as a philosophical debate, but are expressed in beliefs and perspectives, which are similar to, and are shaped by, the philosophical and theoretical frameworks that make psychoanalysis what it is. Theories and philosophies are always hovering some place in the belief systems for psychoanalytic clinicians.

Regarding neuroscience, participants challenged what they saw as a linear position of causality implicit in the use of neuroscience, that to say a person has this neurobiological issue or particular neurobiological make-up is the reason why the person has difficulty with learning or relationships or emotional organization. Participant 6 had commented that there are many factors that shape who we are and that experience is impacted by social conditions, gender, economic factors, and even biology, but that again what is real and relevant data is what is happening in session room. There isn't a need for neuroscience to be involved in order to understand emotional, relational, and intrapsychic meanings. This follows the larger philosophical question of what is real and relevant data. On that point, Nagel (2016) wrote that "whatever may be the ultimate metaphysical truth

about us, we cannot understand human beings except from the mental perspective including its extension into the unconscious…we are *never* going to be able to deal with each other or understand each other in terms of physics or for that matter neurophysiology" (Nagel, 2016, p. 291). Per Nagel's points as well as perspectives for some participants, the question of mind or body is not actually what is relevant and potentially misguided; what is suspended as real experience in the session room is ultimately how one comes to understand.

Likewise, the use of neuroscience for validation of psychoanalytic concepts, its efficacy, or its correctness of theory, raises similar concerns that risk an assumption that what is empirically proved or what is physically seen is reality, and hence what is subjectively understood or experienced is of lesser value. Participant 6 commented that the risk is further assuming that "neuroscience is the truth and psychoanalysis has to be made compatible with that." The word risk does not completely capture the cruciality to the participants who raised this concern; the idea of non-empirical information being devalued in psychoanalysis is anathema to psychoanalytic thinking.

In regards to those larger questions of real and known, Thomas Nagel framed the mind-body problem in psychoanalysis and expressed related questions about what is possible to understand:

> If somebody wants to dig in their heels, you cannot *prove* to them that frogs have some kind of psychologically describable life. But that is in fact a very good way of making sense of a lot of things. And I think that the unconscious, what you investigate and try to understand—the evidence for it is the comprehension that your methods give you. And there is of course controversy over how far this form

> of understanding can extend to things that initially seem incomprehensible psychologically. And maybe there have been some cases of overreach. Maybe schizophrenia is simply a chemical or genetic problem, which of course has radical, drastic psychological symptoms, but isn't understandable as it were in this way. But that is true in any scientific endeavor—how far can you push a certain form of understanding?
>
> It is a question of what kind of comprehension the method actually provides. I think the real problem of overreach is from the other side, the idea that brain imaging is going to give us a key to understanding the mind, which is ridiculous. (Nagel, 2016, p. 392)

In the larger debate, ways of understanding in any scientific endeavor have a limitation to what *kind* of comprehension is found. That limitation is related to the concerns of participants who saw the information from neuroscience as a kind of information that is limited in what it can say and understand. Participant 1 had commented that so what if there is imaging that shows a potential for addiction, “that doesn’t help me treat the patient with addiction,” and emphasized that the focus is on the interpersonal, intrapsychic, and relational questions. “What are we going to do practically to find out what you’re using cocaine for? What is missing? Why can’t you soothe yourself? Why can’t you find ways to reduce your anxiety or deal with your depression other than substance use?” Participant 1’s comments reflect those of other participants who also emphasized the difference in the kind of information that is ultimately important in the clinical process. At the core of the concern is the risk of devaluation and concerns for a cultural push to lean on scientific data as what is more valuable and more

real, as Participant 8 stated that “in our society there's such a tendency that if you find something neurological to say that's the reality."

That perspective aligns with Irwin Hoffman’s 2009 “Doublethinking Our Way to ‘Scientific’ Legitimacy: The Desiccation of Human Experience,” in which he spoke to concerns of the “privileging of systematic quantitative research and of neuroscience.” Hoffman emphasized that it is not simply an issue between a clinician and a researcher, but is a divide “*within* the community of non-research-oriented psychoanalytic clinicians” (Hoffman, 2009, p. 1044). Hoffman’s noting the division between objectivism and constructivism is noted as an idea that is reflected in participant concerns, that within the community of clinicians, questions of how we know and the authority in knowing as the therapist can become problematic. It is a point made in different ways by participants on both sides of the debate and will be further discussed in a following section.

Oversimplified thinking and reductionism.

A related concern to the privileging of neuroscientific information (i.e., that it proves unquestionably what is real and true), centers around what Hoffman (2009) also emphasizes as leading to “the fallacy of reductionism” (p. 1045). This concern also was reflected in participants’ commenting on the problems of neuroscience also representing a medical model approach to treatment that is inherently linear and a modality that is without exception counter to the core of psychoanalytic work. Neuroscience represents a mode of thinking that is contrary to the depth of thinking required and valued in psychoanalysis and for some participants was seen as reflective of other cultural pressures to oversimplify. Participant 8, for example, commented on the problematic

cultural push to think less and have easy answers, raising the concern that neuroscience risks foreclosing more complex ways of thinking. Participant 2 observed that some people can react to the idea of certainty that neuroscience can appear to offer instead of embracing that "you have to give up the idea of that sense of certainty and be open to something new." Participant 3 also added that the dazzle of science could also lead to overdoing it, in the sense of overusing neuroscience to the point of misinterpretation and oversimplified thinking.

Some participants noted that the use of any theory can be handled in a reductionistic way. In that sense, neuroscience can risk reductionism but is also reflective of a larger challenge in psychoanalytic thinking to address authoritarian knowing in which theories are used in problematic ways and the ability to challenge and evolve a way of thinking beyond right and wrong can become closed off. Additionally, the concerns for reductionism do have an aspect that is unique to the realm of neuroscience and its empirical epistemology. Empirical information, facts, are understood as leading to linear thinking and reductionism. But participants added another dimension that follows a larger concern, paralleled in Tolleson's (2009) paper that raises concerns about psychoanalysis falling prey to larger social and cultural maladies, stating:

> In the headlong rush to achieve credibility in the mainstream, to satisfy the demands of the marketplace, to fit in, we have become participants (and unwitting collaborators) in a system we might otherwise challenge. This is blatant in the realms of managed care, diagnosis and medicalization and so-called 'evidence-based practice.' (Tolleson, 2009, p. 191)

Similarly, participant responses reflected the concerns of neuroscience as a player in a linear and reductionistic framework that supports, and is supported by, a more conservative, hierarchical, social power structure. Some participants noted the reductionism that might also come with the overreach of enthusiasm for neuroscience and that that enthusiasm could foreclose thinking in an attempt to too quickly interpolate those ideas into psychoanalytic ideas of causality.

The complexity of all participants' thinking and their valuing of subjectivity does raise a question in determining whether that risk is a reductionism problem due to the specific nature of neuroscientific information, or if neuroscience has become symbolic of a larger, multi-faceted problem with linear, authoritative thinking and hence there may be overreach in the reaction to discount it.

Not the work of psychoanalysis.

For some participants, neuroscience may be interesting, but it does not fall into the domain of psychoanalysis, or if there is some overlap, it is very narrow. The larger topic of contemporary conceptions of what psychoanalysis "is" cannot be fully explored here. This section will remark on the themes that emerged in the data as related to the topic, specifically the themes that participants expressed not just about neuroscience's irrelevance, but about its contradiction to the heart of the work itself. Because these themes are also reviewed in Chapter IV, only the main ideas will be noted here.

For participants who saw neuroscience as irrelevant, the centrality of the therapeutic relationship and the important information needed existed in the session room, and hence the relevant data was contained in the therapeutic process itself.

Participant 1 shared that the core of the treatment focus was on "the relationship that I have with the patient, which is really what this is all about," and that neuroscience was not helpful to understanding the dynamics of that process and its meanings. For Participant 1, it was of interest for example that trauma could impact neurobiology, but it wasn't helping to illuminate what was happening in the session room. Similarly, Participant 6 had remarked that "experience has to be taken on its own terms," reflecting a perspective underlying many of the concerns, that one's individual, subjective experience would be, in the face of neuroscience or a medical model, only a "chimera." While participants did not use the specific language of "narratives" in the psychoanalytic process, most indicated in other ways they were all ascribing to the centrality of subjective narratives, that the experiencing subject and the accompanying self-narratives are ultimately the key to understanding. Similarly, Weisel-Barth (2019) highlighted the importance of clinical narratives in psychoanalytic work to "…make theory stories and clinical stories to convey complex human meaning" (p. 485).

In the evolution away from classical objectivism, contemporary theories (relational, intersubjective, constructionist, and postmodern) have cemented psychoanalysis' focus on intersubjectivities and relatedness. Noting the shifts toward subjectivity here is to highlight the tensions that participants raised between the facts of neuroscientific information and the subjective and intersubjective stories of psychoanalytic work. This is not to say that participants who saw neuroscience as helpful had contradictory ideas about subjectivity in psychoanalytic work. What is emphasized here is the more specific question of the place of facts, a more controversial topic in and of itself through the history of psychoanalysis.

The question of where, or if, objectivist facts have a place in the subjective construction of meaning is part of the central tensions in the larger debate of current literature. Speaking to the push against reductionisms (as reflected in classical interpretations, or facts about human nature, for instance), Orange (2003) wrote that even in the phenomenological trend in psychoanalysis, there still come reductionisms, neuroscience being one representation of them. For participants who landed most vocally in the perspective that neuroscience was irrelevant, they nonetheless did add that in some cases the information might be helpful, though in a small arena. The overall picture suggested that the facts of neuroscience itself were not so much the problem as *the use* of facts. On this issue, all participants ultimately communicated a carefulness and vigilance to not be reductionistic in their use of facts. Critiquing problematic usages of objectivist ways of knowing, including neuroscience, Orange (2003) also considers the necessity to place empirical information carefully, stating:

> My rejection of reductionism, both philosophical and psychoanalytic, should not be mistaken for a claim that the empirical sciences have nothing to offer to the human sciences. Studying the work of infant researchers, attachment researchers, and the developmental systems theorists, for example, can significantly expand the contexts of understanding for the working psychoanalyst by contributing another perspective. Awareness of racism and other forms of bigotry can attune our clinical ears and prepare us to meet the other as a genuine other within the system that we form together, recognizing that our own biases constitute aspects of the relational system. Taking the empirical sciences into account, however, is not equivalent to the claim that psychoanalysis must *be* an empirical science, or

> even that its "findings" must correspond with those of some discipline thought to be more elegant and parsimonious but whose lenses simply differ. Psychoanalysis is its own language game, discourse, and form of life. It is a human conversation about meanings, for the purpose of reorganizing troubled experiential worlds. It is not equivalent to the findings of any number of positron emission tomography scans, any more than my computer, hardware and software combined, is equivalent to the love letter I may write on it. (Orange, 2003, p. 483)

Interestingly, the concern that concrete neurobiological pieces of information, fMRIs as a frequent example in the literature, would be conflated as equal with the affective, relational experience, was not a narrative that came up within the data. As noted around other similar themes, all participants took the role of facts and ways of knowing seriously, aware of the need to challenge and question their own positions.

Summers (2013), similar to other challengers of objectivism and authority of theory, wrote that "it is therefore imperative that the analyst understands what position he adopts, see his ideas as suppositions, and above all, is vigilant about any presuppositions he may be tempted to assume" (p. 17). Are facts akin to the "tyranny of objectivism" that Summers (2013, p. 20) speaks of? Palombo (2017) addresses this question by considering the nonlinear aspect of the use of neurobiological facts, writing that "the presence of a neuropsychological deficit is not predictive of any specific outcome. The constraints that these self-deficits impose on a person may only lead us to speculate on the probability of the outcomes" (p. 27). Palombo further described the position:

> Such a systems perspective takes into account the contributions of the "body," the subjective meanings, and the contextual elements. The critical component of the

> impasse was the "narrative" the patient presents, which incorporates the meanings the patients construed from their experiences, and the narrative that is co-constructed during the treatment, which includes the role of brain dysfunctions that were formative in the patients' problems. (Palombo, personal communication, 2020)

In other words, Palombo is suggesting the facts of neurobiological constraint are not intended to be used linearly as a direct path to understanding causality, and considers a systems perspective to navigate a realist and constructivist impasse (Palombo, 2013). This perspective seems important in considering the challenge presented trying to navigate the two worlds of objectivity and subjectivity.

In summary, Summers (2013) cautions that psychoanalysis cannot collude with what he called a "culture of objectivism" (p. 17), which neuroscience is at risk of doing, reflecting the larger concern and tensions of subjectivity and fact. "While it may seem obvious to some to say that analysis is about the experiencing subject, we have seen in our review of deductivism that theoretical presuppositions have often been privileged over the patient's experience," writes Summers (2013, p. 17). It is this perspective that sits at the heart of concerns about neuroscience and psychoanalysis and yet, in moving closer to the thoughts of participants, it is not a controversy as polarized as can appear in the larger conversations. At the more intimate level of the interviews, there is a consistency in a vigilance to protect subjectivity.

Perspectives on the Body and Physicality as Related to Neuroscience

It is important to note that this section will discuss aspects of the larger topic of the body, physicality, and biology as it emerged in the narratives and currently lands in psychoanalytic thinking. It is not a comprehensive discussion of the body in psychoanalysis as that is a topic that requires a full study on its own, but general tendencies and themes will be noted. More importantly, it is important to note that neuroscience is not interchangeable with the body even though within the discussion here and the narratives in the data, there is significant overlap of these two ideas. Neuroscience proper refers to the brain and brain function specifically, and is ultimately the main focus of the discussion in this section. However, there are overlapping bodily themes within participants' responses and the larger narratives of psychoanalytic literature that are important to note as they shape the attitudes and tensions around neuroscience.

Narratives within psychoanalytic clinical literature have more classically focused on the symbolic aspects of the body (i.e., from classical perspectives such as birth, the breast, and genitalia to more current re-thinking about body, culture, and gender), but little about actual biological functions. While Freud (1923, 1950 [1895]) attempted to integrate phenomenological aspects of perception, including biological aspects of sensory and language processes, the oft quoted "the ego is first a bodily ego" (Freud, 1923, p. 26), or the premises of developing correlation between the mind and brain function in the Project for a Scientific Psychology (Freud, 1950 [1895]), the ideas that ultimately persisted were representational and symbolic, concepts such as the Kleinian breast, Winnicott's psyche and soma, and more currently, embodiment. Areas around actual

development and learning are sideline discourses, as noted most overtly in the historical place of Piaget, for example, who is more a distant cousin to the psychoanalytic family, but even currently, developmental concepts has a narrow place in the literature and training. Further, very little developmental understanding from other disciplines has been integrated into psychoanalytic theory.

Only a few recent theorists, Palombo and Greenspan most notably, have written about the direct connections between neuroscience, development, and cognition with clinical applications and formulations. Even within literature focusing on neuroscientific considerations for psychoanalysis, very little is actually about clinical practice and how one would use that information in the session room. This point is made to emphasize that,

1. as an empirical endeavor, neuroscience is in and of itself separate from the representational, symbolic world and at the most practical level, makes neuroscience an outsider from hermeneutic discourse, and
2. the discourse often tends to extract areas that fit into the symbolic and representational realm, which leads to some blurriness and incomplete understandings of the actual empirical, neuroscientific side and the functional aspects of the body. Even for the participants who were medically trained, it was difficult, in a general sense, to articulate the ways that empirical knowledge of neuroscience (such as regulation, affective science, cognition, or neurobiology of trauma) fits within psychoanalysis, not because of inadequate knowledge, but more so because of the challenge to bridge the two worlds and perhaps, the two languages.

While this in some ways is stating the obvious, it is helpful to clarify that the contradiction of an empirical science and a hermeneutic endeavor come into stark relief when epistemological discussions of the body move from representational to specific, empirical brain function. And while it may also seem like a redundant topic, it seems important to note that the body is nonetheless there; it is very much present in psychoanalytic discourse and in participants' minds, but it is a wieldy, enigmatic topic.

In regards to the mind-body dilemma itself, the epistemological conflict is paralleled in participants perspectives, though participants didn't necessarily describe that the epistemological quandaries were on their mind per se. All participants touched on overlapping epistemological quandaries in one way or another, typically indirectly, but some more directly in terms of considering use of theory and questions about how we know. The complexity of the conflict wasn't lost on any participant. It is noted as an observation that there is a parallel between the epistemological conflict and the ground level of clinical discussions, the way that the incompatible aspects of the empirical and hermeneutic worlds are paralleled again within the dynamics of clinical discourse through the blurriness and vagueness of where the body and the brain fit into psychoanalysis.

Categories reflecting interrelation of the psyche and neuroscience.

The ways that participants in this study saw the body and the psyche as interrelated, either specifically related to neuroscience or reflective of a larger attitude of the role of human physicality, primarily fell into the following larger categories:

1. That there can be a physical response to affective and relational experiences, in the sense of one having a physical memory, and that the body (and the brain) has affective memory and a response to memories, which is one way the term embodiment was understood.
2. That there is a neurobiological basis for trust and basic attachment, which is also interrelated with the capacity for affect regulation.
3. That affect regulation itself has a biological component that impacts emotional states and reactions to feelings, a perspective that is different than understanding certain reactions as defensive.
4. That individual learning and cognition, as related to perceptions of self, other, and the world, is helpful to understand as factors that shape a patient's experience (and *experience of*), as well as factors which shape subjective meanings.
5. That neuroscience specifically adds to or redirects psychoanalytic concepts of memory, consciousness, and to a lesser extent, dreams.

Participants varied as to which aspect around neuroscience they found helpful, in addition to whether or not they found it relevant in the session room. As noted previously, no participant argued that neuroscience was uninteresting, but again, the complexity of the topic made for a wide array of what was interesting and ultimately, what was relevant.

To explore this topic further, the following sections discuss three larger bodily-related themes and their connection to both current psychoanalytic discourse and its history.

The body is present.

Across the board, the body is seen as impactful, with significant variations on how, how much, and if actually relevant to clinical process. To restate, the body *exists* as relevant to human experience. The body is present. This is separate from the specific topic of neuroscience per se, but related in the sense that notions of the brain as impacting the psyche at minimum hover in the process for some participants, and can be part of the guiding principles for others.

Vagueness to what it is, exactly.

As noted, there is a fuzziness to what it is about the body, and also more specifically brain functioning, that is relevant to the psyche. There is a notable reluctance to take in information from other disciplines and a skepticism of those disciplines that makes for a vagueness in considering the brain and the body. And perhaps, as noted in the concerns described in an earlier section of this chapter, some of that vagueness is also related to the fact that the concreteness of biology and the physical are also automatically approached with some skepticism, as they can represent something reductionistic and oversimplified. There is also a particularly narrow way that information about the physical is allowed in to the discussion, in part because of limited collaboration or involvement with other disciplines, but also related to training and the modalities in which collegial discussions happen, or for that matter, don't happen.

The body as lesser than.

Similarly, there is a theme of seeing the body, the physical, and hence the neurobiology of the brain, as lesser than, and also separate from, the intellectual meaning-making pursuit, a theme that has a history over the evolution of psychoanalysis. Classical models, for instance, framed the visceral id as something to be controlled and overcome, as primal and not of higher-level mental functioning. In current thinking, there is an automatic response to seeing scientific information about human physicality as concrete and simplistic, that to focus on it would equal a loss of complexity that psychoanalysis requires, another form of "lesser than" as it is seen as reductionistic thinking. Further, the lesser than theme is also expressed in a skepticism or hesitancy of making it prominent in collegial discourse (as also seen in the data), and an ambivalence that is in part exhibited by the reluctance to bring it into the session even when neuroscience is understood as helpful. Secondly, the lack of crossing bridges into other disciplines, which is required to understand potential aspects of neuroscientific findings, and thirdly, the worries within the community about criticism, are two insulating dynamics that converge to maintain the ambivalence around the body and neuroscience.

Summary of ideas regarding the body.

The general points noted here are that the body has a role in some aspects of thinking in terms of its symbolic and metaphoric meanings, but the role of the scientific concreteness of neuroscience and brain function is much more unclear, conflictual, challenged, and approached with skepticism, even when there is a positive view of neuroscience's relevance. This is again, not a surprising theme, as it reflects another

parallel of the epistemological contradiction of hermeneutic and empirical paradigms; the symbolic body is potentially acceptable, but concrete, scientific understandings of brain function are problematic.

Related views on medication.

The separateness between body and psyche also emerged in the discussions related to medication and has parallels to the role and attitudes towards neuroscience. For all participants, use of medication was not controversial and was typically understood to be a helpful adjunct when there was something that psychoanalysis couldn't get to (or as Participant 6 emphasized, "get to *now*"), as well as understood as something that could be an adjunct to platform a patient's ability to use therapy. In the descriptions, medication is seen as addressing something biological and, in this way, something separate, something that addresses something that psychoanalysis can't. Referrals for medication were approached cautiously, but with a sense that there may be times that it is needed. Introducing a recommendation or referral for medication, or collaboration with psychiatrists was minimal. Nonetheless, there is an acknowledgement that there is an overlap between body and mind.

Questions about efficacy, specifically what is it that medication can do or not do, is still also vague and not entirely understood. Participants also raised the concerns about the complexities and risks of using medication, such as over-medication, the potentially wieldy and difficult path to finding the right medication and dosage that is helpful, or the potential for over-reliance that short-circuits the depth orientation of psychodynamic work.

The idea of different but overlapping domains was a common take on medication and while it was seen as acceptable to use, there was also a tone in some of the narratives that suggested that when patients were able to get off medications, that was better, that was a success, a view that lends itself to a certain skepticism or lesser than solution associated with medication and hence, neurobiology. Again, this is not an argument to undo the skepticism; medications can be overused, over-relied upon, and have significant side effects; nonetheless, it does parallel a theme of the physical, the body, and the neuroscience of the brain as being something lesser than and other than.

Exploring the Tensions More Deeply: Related Dualisms and Complexities

This section will expand on ideas related to the tensions that have already been suggested in the initial section, particularly the sense of otherness and the polarizing, dichotomous dynamics as related to what participants described about how those frameworks are taught, discussed, and utilized within participants' respective communities.

To start with, as a topic that is at first easy to categorize in a more dichotomous fashion (either for or against), it became clear in the analysis that to categorize participant's perspectives in that way was too simplistic. To do so belied the complexity of the topic and, more importantly, of participant's responses. That said, the topic itself does tend to pull for a polarizing position in which the narratives are framed as for or against. This polarity has been reflected in the literature, community dialogue, and conference presentations. However, the layers of the complexity of the topic and the depth of thinking with which participants approached the topic was a counterweight to a

sense of dichotomy. All participants were typically thoughtful and attentive towards perspectives that didn't align with their own, even when at times passionate about their concerns. The conversations were a different flavor of dialogue than in the larger community, which has a polarizing dynamic that can tend to push one to take sides. Both dynamics, the polarizing aspect as well as the complexity, came through in the data.

The polarizing nature is an interesting dynamic in and of itself that is worthy of exploration both in what it reflects about the topic of neuroscience in psychoanalytic discourse, but also and perhaps more importantly, what it reflects about how difference is discussed, approached, and navigated within the community. An initial impetus for this study came out of the observation that the way the topic of neuroscience is discussed pushes one to take a side. That general attitude, a feeling that there are sides in the first place, came through in the data.

By contrast, the process of one-on-one, in-depth interviews also allowed something to emerge that was contrary to the polarizing aspect. Typically, from the first interview to the second interview, there was a shift from a sense of stridency to a potential openness towards ideas counter to their own (be it pro or con). It was not that the shift changed participant's ideas per se, but there was a gentler respect for different ideas. The comfort with the one-on-one conversations and the rapport developed from one interview to the second, and even from the beginning of one interview to the end of that interview, offered something that gets lost in larger formats of dialogue (such as conference or literature), something that when it gets lost, perhaps fosters a heightened vulnerability to a more divisive way of talking and perceiving.

Two-sided philosophical tensions.

There are two philosophical perspectives that reflect a dichotomous, binary dynamic in the larger questions of the study and in the data. The basic philosophical challenges are the empirical and hermeneutic conflicts and the quandaries of Descartes' mind-body dualism. While there is complexity in these philosophical tensions and debates, there is a "versus" aspect and a binary, two-sidedness.

As noted, for clinicians in general, the philosophical underpinnings of belief systems are less a part of clinical discourse even though they may be shaping beliefs. Theories are always at play, even if clinicians aren't thinking about them. Some participants acknowledged philosophical differences quite articulately, but nonetheless they were not the main driver of the how participants described their perspectives or the conflicts. To clarify, the philosophical underpinnings are not seen as the main focus of conflict in participant narratives and participants did not in general engage in a philosophical debate per se in the interviews. However, the formal quandary of epistemological and metaphysical questions is understood as continuing to impact and influence the current conversations and reactions, and is seen in the data. Such questions are heard in participants' views about,

1. metaphysical type questions of what is determined as real in how one formulates, assesses, or makes sense of clinical process,
2. challenging views of what is useful data in the sessions, and
3. the strongly held convictions that subjectivity is devalued if empirical data is seen as ultimately more valuable.

In regards to the empirical and hermeneutic challenge, Palombo (2000) articulated the problems with the fundamental elements in *Psychoanalysis: A House Divided,* arguing for the need for a more comprehensive theory from both positivist (which comes out of empirical data) and constructivist (which comes out of hermeneutics) positions. For purposes here, Palombo's (2000) description of the merits and flaws of both positivists and constructivists, and the ultimate chasm between the two, parallels the challenges that participants also raised. He writes:

> What appears to have escaped discussion is that each of these positions is flawed because of an internal division from which each suffers. The strength of the positivists' position is in the articulation of theories of development and psychopathology…However, the positivist approach presents serious limitations for the practicing clinician: since therapists have no way of verifying the truth or falsity of patients' statements, the methodology appears inapplicable in the clinical setting.
>
> The strength of the constructivist position is found in the clinical setting. The task of understanding and interpreting patients' communications constitutes the essence of the therapeutic process. Where this approach falls short is in the articulation of theories of development and psychopathology, since these theories can only be formulated through the use of a methodology that requires observation of data outside the clinical setting. (Palombo, 2000, p. 2)

Nagel's (2016) discussion notes similar problems. He argues against neuroscience's relevance, pointing primarily to the metaphysical problem of "irreducibly distinct fundamental aspects" (p. 390) of objective reality, emphasizing that

epistemological arenas (the way one approaches how we know what we know) are more helpful to discuss in order to capture the subjective aspect of human experience, and to psychoanalysis' "essentially perspectival nature of the qualitative aspects of consciousness." (p. 391) He speaks to the epistemological questions, not the metaphysical ones, as more relevant, stating that "whatever may be the ultimate metaphysical truth about us, we cannot understand human beings except from the mental perspective including its extension into the unconscious" (p. 391). Nagel further poses whether the mind-body question is actually the right question to pose in the first place, stating that to understand one another is not done so through "physics or for that matter neuropsychology" (p. 391).

In participant responses, these concerns are paralleled in the skepticism or hesitancy to utilize facts, or in participants' questions and challenges in trying to ascertain how one holds onto subjective experience and yet integrate or consider other types of empirical data: information in the literature about brain function, developmental information, medication, or results from neuropsychological testing, for instance. All participants in one way or another conveyed that this was an ongoing challenge; even for those who felt more strident that the important data was already in the session room and occurring in the therapeutic relationship, they still acknowledged there were questions about where to place or use facts and other types of data. It is reflected in thoughts such as Participant 6 stating that "medication is helpful to get at *something* that psychoanalysis can't, or can't at that time," in which that *something* is acknowledged but seen as something other and separate from psychoanalysis, and also not entirely understood.

Similarly, these thoughts provide a segue into discussing how the mind-body quandary of Descartes' dualism, though more complex than is discussed here, is reflected in the data, a philosophical quandary that has some similar shape in participants' perspectives. As noted in the previous section, participant narratives indicated that the body was both present and not present, enigmatic and sometimes confusing, along with varieties of perspectives on what or how bodily information (including but not limited to neuroscientific information) was actually helpful. While this is not exactly the nature of Descartes' quandary, there is a similarity: the biology of the body is both different and outside of psychoanalysis, yet at the same time present and impactful.

This section was included to note that there are not only influences and parallels from philosophical frameworks in the data, but that there is also within those philosophical shapers, dualistic dynamics of this or that, one or the other, mind or body, and objective or subjective, that exist in the narratives. This is pointed out because of the parallel in the way neuroscience is discussed and reacted to in yes or no, right or wrong, relevant or not relevant ways in which, again, there is a sense of sides. These dynamics are seen more so in the cultural dynamics that participants described and will be discussed in a following section that compares cultural, binary ways of thinking with culturally complex ways of thinking. First, however, a brief review of some philosophical frameworks related to complexity will be discussed.

Complexity.

Although the early dualistic underpinnings still influence current discourse, psychoanalytic theories have moved beyond linear causality and expanded upon the

hermeneutic frame to include constructivist, post-modern, non-linear systems, and intersubjective positions. All of these perspectives cannot be reviewed here but for purposes of the discussion, it is worth pointing to a couple of tenets that are helpful in conclusions drawn from the data.

Specifically, in regards to neuroscience, Palombo (2107) discussed the importance for theoretical complexity when discussing causality and the concept of the self:

> Freud's methodology suffered from a fundamental flaw because it was based on the Newtonian system of linear causality…Modern advances in the sciences argue that the concept of linear causality, while useful in providing some explanations, overlooks the complexity underlying the relationships among the processes that contribute to any set of feelings, thoughts or behaviors. (p. 10)

He further discusses the importance of maintaining a theoretical, nondeterministic position in line with nonlinear systems theory, particularly the reciprocal aspect of understanding causality. Palombo also offered as a response to the theoretical quandaries of dualism in navigating the question of "mind *or* body" and has developed the only current conceptual framework that allows for a platform in which both subjective experience and individual meaning can epistemologically exist within the context of empirical, physical components of neuroscience. Palombo's conceptual framework allows for a nonlinearly derived understanding of subjective experience that can, as one of many factors, nonlinearly be shaped by the physical. Palombo (2017) states that the mind and body are ultimately "two sides of the same coin" (p. 145), each viewed from a different perspective. But more importantly, that neuroscience "can point to brain

activities that co-occur with specific thoughts, behaviors, or affect states. However, equating these neurological events with meaning-making activities with which we are concerned is reductionistic" (p. 145).

These theoretical perspectives are noted because they offer a different perspective in relation to concerns that neuroscience equals or would lead to reductionism and over-determinism. The move in psychoanalysis towards conscientious focus on complex ways of thinking beyond an either/or sense could seem contrary to the nature of neuroscience. The concern for reductionism, over-determinism, and oversimplification was present in some form with all participants, but even for those who felt positively towards neuroscience, there was not a sense of how to conceptually integrate the divergent perspectives, meaning it seemed difficulty to explain how to put together potentially useful neurobiological facts in an articulable, conceptual way.

Relational and intersubjective perspectives also provide helpful perspectives to the discussion of the data. First, a note that the incompatibility in philosophical underpinnings may have shaped the way neuroscience has been discussed, but they were not, on the other hand, what was debated by participants. Participants were not typically engaging in a philosophical discussion. Further, as a phenomenological study, participants' responses are not just to be considered on their concrete, face-value terms, or objectively categorized. It requires one to move beyond the more concrete aspects of "how is neuroscience helpful?" and "how is it problematic?" to the individual *experience of,* the community *experience of,* and the intermix of meanings that are co-created and that also shape those attitudes. There are reactions to neuroscience that have been shaped by subjective, cultural, and relational factors. Clinician's theoretical beliefs are impacted

and reinforced by a network of factors. In other words, in considering the larger exploration of participants' attitudes and beliefs, it is helpful to include the larger, cultural third in developing the picture of the dynamics of how the tensions, differences, and belief systems play out in the community. This is the topic of the following section.

Cultural dualisms and cultural complexities.

In this section, the cultural context refers to the local, professional, psychoanalytic community that participants are all a part of, such as the institution where they have professional connections and relationships, where they teach, have had training, and attend or lead workshops and conferences, etc. That particular culture can also be understood as part of a larger psychoanalytic culture: the national or international organizations and conferences in which professional connections happen outside of the local areas, as well as the larger discourses in professional literature.

The following sections describe themes around the interplay of participant belief systems within the culture of their community (and vice versa) that impact, but also maintain, the tensions. Specifically, three areas that emerged from the data will be discussed that are better understood through more complex frameworks as a way to speak about the mix of the binary, authoritarian aspects and the more intersubjective, complex aspects: a) the sense of otherness and fears of psychoanalytic cornerstones being threatened, b) use of theory, and c) insularity in the community.

Otherness and fears of theoretical cornerstones being threatened.

What will be focused on here is the emotionality connected to belief systems that increases a potential for otherness and polarization, fueled by cultural factors that have embedded a right and wrong way of thinking. For example, there were worries for some participants about privacy and being able to say their thoughts confidentially. A number of participants communicated concerns as to who might read this study and paused to consider if he or she would be recognized by colleagues; a couple of other participants asked for the recording to be paused to share something they were concerned about another colleague hearing. The memories of previous tensions also came to mind for some participants, without prompt, as they remembered prior arguments and hostilities, particularly the self psychology debates between Kohut and classical theorists. One social worker remembered the tensions for social workers being accepted into psychoanalytic circles, as did a psychologist before institutes allowed admissions to those outside of medical professionals.

There were references to the differences in the groups, which institute does what, for example, that also indicated a heightened importance of safety, comradery, and kinship within those groups. Being accepted, being a part of the group, or not being ostracized or criticized were themes that existed in some way in every interview and occurred at the level between the researcher and the participant as well. Developing rapport and a sense of emotional safety between myself and the participant was prominent and crucial to the interview process itself. Without question, there were overt and subtle concerns of being exposed in some negative way, worries of hostility, a riskiness of being in or out, and being accepted by the group. This dynamic emerged

clearly and powerfully on its own. It was an unexpected surprise as to how clearly that dynamic made itself. As a cultural dynamic, but also as connected to neuroscience, it is worth exploration. What does this dynamic say about the dynamics of the culture and what becomes of the topic of neuroscience within that culture?

Object relations' concepts of otherness (i.e., the danger perceived in the split-off aggression projected into the other), were noted by a couple of participants to think about the tensions and are helpful to consider as a vulnerability within the profession. Participants spoke of the emotional intensity of the work and the requirement to enter into the world of traumatic feelings that fosters a need to hold on to particular views and see (or perhaps, feel) something outside that way of thinking as unacceptable. Similarly, from a self psychology perspective, considerations of difference and otherness as potential narcissistic injuries that shake self-cohesion is also helpful and noted by a participant. Theories, as Orange (2000) reminds us, are like family. The point here is to note an irony: clinicians are on point when thinking about these reactions with regard to the therapeutic relationship and understanding human vulnerability to such reactions. However, those considerations are potentially less utilized constructively to navigate dynamics in the larger community and its culture amongst professional relationships.

Intersubjective and nonlinear perspectives expand this thinking more fully. An excerpt from Donna Orange's 2000 paper "Zeddies's Relational Unconscious" is helpful in considering the problematic position of linear thinking, which the otherness quality of neuroscience in psychoanalysis tends to pull for and to which an intersubjective position can offer a counterweight. Orange speaks here about therapist-patient aspects but expands to consider one's ways of knowing. These ideas are helpful to consider in regards to the

cultural, relational issues amongst colleagues and in professional organizations noted in the data. She discusses the idea of emergence, which comes out of nonlinear systems theory, and its applicability to psychoanalysis in which knowledge, is "never complete and final, is neither ex nihilio nor from given 'material.'" She further writes:

> Emergence, like organizing (Stolorow, Brandchaft, & Atwood, 1987) allows psychoanalysts to describe their work not in terms of material and interpretation (probably a false dichotomy), but as a dialogic praxis in which a safe enough place can be established for new understandings and possibilities of experience to develop. Psychoanalysis thus seeks a dialogically organized sense of the patient's emotional predicament, an understanding shaped by the historically conditioned organizing processes of both analyst and patient. To paraphrase Zeddies's (2000) title, unconscious becomes whatever is outside the horizons or limits of understanding—yours, mine, and ours. The unconscious is the impossible, from an experiential point of view, but impossible in many ways, for many reasons, in many relational contexts, past, present, and future. This impossibility often takes the form of an inability to imagine, to see differently any element of a traumatically organized emotional predicament—including its patterned set of emotional convictions. The complexity of impossibility—yours, mine and ours—is what makes psychoanalysis the "impossible profession."
>
> Further, this view of emergent psychoanalytic process, always incomplete and self-correcting, fits well with the fallibilism of an intersubjective view of psychoanalysis. From moment to moment, from rupture to temporary resolution to the next misunderstanding, psychoanalysts bumble along with

> patients, seeking, in a phenomenological spirit, the understanding that comes from staying as close as possible to the patient's perspective. At the same time psychoanalysts remain as aware as they can of the ways their personal and theoretical agendas (e.g., that the patient should recognize the psychoanalyst as a genuine other) shape and limit the experiential possibilities open to the patient. Not merely a recognition of human fallibility, fallibilism is an antiauthoritarian spirit, but it is unique in that, with relational psychoanalysis generally, the fallibilist sees his or her own search for certainty as the most serious threat to psychoanalytic practice and theorizing. (Orange, 2000, p. 491)

Orange's thoughts on the impossibility of our profession and the challenge to counter patterned and linear ways of thinking that limit emergence seems to be an important frame to complexify an understanding of rightness and wrongness, or fears of being in or out. In other words, it is a perspective that is missing, or at least has not taken hold enough, to counter that dynamic. While this study is not necessarily focused on solutions, it seems important to note that the philosophical, historical, and cultural influencers that maintain shadows of classical, authoritarian, and linear frameworks are what participants, and the larger community of psychoanalysis as reflected in the literature, is trying to move away from. The dynamics in the discourse around neuroscience reflects what is both problematic, what is being sought, and where there is potential in the direction psychoanalysis wants to go. Psychoanalysts typically don't argue the authoritarian mode as acceptable, and every participant was deeper and more complex in their thinking than they were rigid. Yet, the debate of neuroscience itself and cultural dynamics noted in the data show that paradoxically, psychoanalysis is vulnerable

to stepping into rigid positions, even when we know we are vulnerable to do so, even when we continue to challenge that limitation, and even when we have, probably more than any profession, tools such as intersubjective and nonlinear theories to address the rigidity. Fallibility and emergence, which also help complexify the discussion in this study, are also seen as concepts which counter that linear, authoritarian root that psychoanalysis is trying to evolve out of. While intersubjective theory continues to be more understood, acceptable, and assimilated into psychoanalytic thinking, narratives in the data suggest that it is still floundering in its usefulness within the collegial relationships and the community itself.

While this may belabor the point, it seems helpful to also consider relational ideas of a dialogical stance, of symmetry and asymmetry. Frie (2010) discusses the challenge to expand and not restrict one's thinking, discussing Burke (1992) and Aron's (1992) ideas of symmetry and symmetry in the therapeutic relationship as helpful in considering points of conflict and the potential for the emergence of compassion, stating:

> A dialogical stance points to both the possibilities (symmetry) and constraints (asymmetry) of human relatedness, which are crucial for the emergence and maintenance of compassion and dialogue. To be sure, the limits of our relatedness are continually tested by the challenges of interaction and the potential for conflict whether within and outside of the analytic dyad. However, it is also our very relatedness that provides the means to understand and appreciate the distinctiveness of the Other. Thus, the dialogical stance in psychoanalysis takes as its starting point our fundamental embeddedness in a world of social interaction.

> It is our very contextuality that also provides us with the language of compassion. (Frie, 2010, p. 463)

The emergence of compassion through contextuality and dialogic positions that account for symmetry and asymmetry is a perspective that also help provide insight into the tensions, or perhaps highlights what is missing in addressing the tensions. In the data, fears and anxieties of belonging, being understood, accepted, correct, seen as knowledgeable, and ultimately doing the right thing were part of the core of the tension, the heated reaction. The topic of neuroscience, as one example, represents a threat to something important in the view of what psychoanalysis is and does, most notably the argument of "do not be reductionistic!" In addition, that discussion is embedded in a culture that also provides tinder for the fires of asymmetry vulnerabilities to become inflamed. Paradoxically, the call for not being reductionistic can become reductionistic. The dynamics ultimately de-complexify the conversations.

Nonlinear systems, relational, and intersubjective theories challenge the positionality of theory itself and its authority along with the power dynamics within the therapeutic relationship, which can provide a way to address binary tensions. However, there is data to suggest that it is still an unfinished project and also needed within the discussion of professional dynamics in respective communities.

Use of theory and authority.

This section will reiterate a few of the points in the preceding section but with a specific focus on noting the themes that emerged around theory and knowing. A number of participants brought up the question of how knowing, and specifically use of theory,

can be problematically used not just in regards to neuroscience but across the board, specifically when authoritative thinking ultimately forecloses deeper and more complex understanding. When sharing thoughts on the helpfulness of affect regulation and its biological components, for example, Participant 7 noted the larger challenge to not limit thinking with *any* theoretical perspective:

> I think it's always helpful to think about how regulatory processes, like how somebody could be overloaded with some sort of affective state, and I guess to think of that as a "real" thing. And whether having a biological understanding of that maybe makes it easier for you to think it's a real thing. I'm not sure if that's necessary. So somebody comes to you, and you're talking about something and they get overloaded, how do you understand that overload? Do you understand it as a defense? Do you understand it as some kind of not quite voluntary activity of their nervous system that requires some intervention other than interpretation? So those kinds of questions I think are really interesting and important, and to accept that neurobiology helps us think about that, I believe, that's helpful. But again, even without a neuro-biological foundation, like a self psychological framework, people can jump to the conclusion that someone's in a fragmentation, therefore there was a rupture of empathic connection, and that can foreclose listening to their associations and seeing what their fantasies are, and what you're calling fragmentation is a fantasy of whatever, punishment, or castration, or who knows? So, I think a lot of these sort of causal theories, I think can be potentially problematic. Whether it's a psychological cause, or a biological cause.

Participant 7's comments speak to what other participants described in terms of concerns around constricted thinking, using theory to ultimately de-complexify, be it concerns that neuroscience may be what leads to constriction, or be it in general way that a closed position to dialogue around theory leads to that constriction. For some participants, the use of neuroscience was equated to narrow thinking. For others, it was a concern and there was a carefulness to not fall into non-psychoanalytic, narrow thinking.

In that regard, it is worth considering two positions: that neuroscience narrows thinking or, that like any theory, has the potential to narrow thinking in a reductionistic manner to foreclose knowing. The use of theory as a way to know, and the paradoxical potential to narrow knowing, hence is a larger issue to consider and question if neuroscience's position as an empirical, positivist discipline dealing with facts leads to automatic, closed reactions which have marked it, so to speak, as equal to reductionism and equal to knowing in a limited, foreclosed way.

A factor to consider again is the idea of otherness of theories, a sense of difference that elicits a more defensive response, can be at play when confronted with a way of thinking that challenges or pushes against what one holds as central to one's belief systems, not just because of a difference in content, but in large part because of the emotional attachment and the organizing principle that theories provide. Participants recognized this dynamic and noted in different ways how challenges to those beliefs rattles the system, often defensively, and can create a polarized, binary feel of difference: this-not this, right-wrong, psychoanalytic-not psychoanalytic. The complex emotional attachment to theories that participants also noted raises the question as to whether this is a unique vulnerability in psychoanalysis. Does the emotionality of the work, in

combination with the interrelated, authoritative history of psychoanalytic theory and practice, create a vulnerability that is specific to psychoanalysis compared with other disciplines? This type of study is not designed to derive that answer but it is a question that is worth consideration given the type of emotionality of the work that participants acknowledged and is unique from other professions.

The history of psychoanalysis may also continue to be shaping tensions. In the classical model, the analyst knows and is a model evolved from what was attempted to be, at least initially, a positivist, epistemological platform. While the hermeneutic direction ultimately became the primary mode, the empirical flavor and its binary, authoritarian position continued to shape thinking. That classical mode was most overtly reflected in the blank slate analyst, now an idea psychoanalysis is well beyond. However, there are aspects of that classical authority and a classical purity that are reflected in a hovering question of "is it allowed in psychoanalysis?" and a particular carefulness, even when many aspects of that classical authority are agreed upon as outmoded. On one hand, neuroscience may be caught in a cultural dynamic of that right/wrong system that deems neuroscience as "not psychoanalytic." Paradoxically, neuroscience may also be conflictual because its empirical root represents a now discarded authoritarian way of thinking, that to take the position that neuroscience is relevant would appear to support or maintain a more classical and authoritative position.

Language and culture also have an influence that seems important to note. On the concrete level, how the language of neuroscience and psychoanalysis differs (areas of focus, the terminology, or the positivistic versus hermeneutic aspects) are factors that contributed to a dis-interest and sense of foreign-ness. This is reflected in how Participant

1 described “not reading in that direction,” Participant 8 questioning “what is sensory processing, anyway,” and other participants who, even with interest in neuroscience, had difficulty describing their function of usefulness.

On one hand, the scientific nature and scientific language of neuroscientific facts seem to provide an automatic foreignness to psychoanalytic language and modalities of thinking. On the other hand, there is also a parallel of the positivist and constructivist ways of knowing that complicate this tension. Psychoanalysis requires entering a subjective reality, a suspension of the outer reality for a focus on inner reality. This unique position of psychoanalytic process, how Parsons (2007) describes that “the analytic setting delineates a space in which the expectations of everyday reality are suspended” (p. 1441), brings the question back to the what to do with facts, with the external reality that Parsons (2007) describes as “a space protected against the assumptions, expectations and judgements of ordinary reality” (p 1441). The topic of language is noted because there is an observed narrowness to how neuroscientific language is brought into the fold of psychoanalysis, which was noted in the data, and that one way to understand that is how psychoanalysis’ language of subjectivity, suspension of external reality, has trouble finding bridges with facts and, at times, external reality. It is a question as to what, if any, external realities, including neuroscientific information, are necessary. Palombo’s (2000) discussion of the relation between language and theoretical knowing, considering the positivist and constructivist frames but also the connotations and denotations of language, is helpful to consider:

> Since we cannot escape the use of metaphors-perhaps only mathematical formulae escape such a use–our explanations of particular sets of phenomena are couched

> in the form of narratives. These narratives require a level of coherence for them to make sense to others. But to the extent that coherence dominates over correspondence, the explanations remain speculative; to the extent that the explanations correspond to the phenomena, they become hypotheses subject to verification or falsification. Such hypotheses are not pure construction, though they may have elements of speculation in them. Our knowledge is therefore progressively cumulative. Paradigm shifts will occur as we encounter unforeseen anomalies. As our understanding of the universe increases so will the puzzles that confront us. That need not mean that we have not accrued knowledge. It only means that we are on the threshold of new discoveries. In short, while coherence is a necessary condition for understanding complex phenomena, ultimately coherence must yield to correspondence. If coherence supervenes correspondence then the possibility of falsifying hypotheses is compromised. When that occurs, we enter Alice's world where things mean what we want them to mean, rather than referring to our shared experiences. (p. 24)

The topic of language is further noted because in the use of language and the theories that we develop and create with it, there is an inherent challenge to find coherence amongst different perspectives, as Palombo (2000) points out, in order to be able to come to understandings not just between theories, but between each other. He writes that “each language is translatable into another because the concepts of each language, even though slightly different, overlap sufficiently in their referents for them to be comprehensible to foreigners” (p. 24). In that sense, it worth re-considering an understanding of the inner reality as having elements of external reality and being shaped

by external realities. The exploration of subjective experience does not necessarily have to negate those realisms.

Burke (1992) and Aron (1992) ideas of symmetry-asymmetry of knowing in the analytic situation are again helpful. The therapist moves back and forth in the therapeutic relationship from a more asymmetrical knowing and interpretive position to a more symmetrical, mutual position. Within the data, as well as observations of collegial discussions, the parallels of that dance exist in the tension about what to do with subjective realities and external, positivist realities, but also how to talk with one another that was also clearly an issue in the data: there is an openness and mutuality in certain realms of the discussion and an asymmetry when landing within the structure of one's beliefs when they may differ from a colleague. Within that difference, there can be tensions that in the therapist-patient relationship might have the opportunity to be further recognized in a way that Aron (1992) describes "each analyst-patient pair needs to work out the dynamic tensions between the analyst's participation and non-intrusiveness" (p. 483). In collegial discussions, that opportunity is perhaps more limited and more difficult to come by. It is not out of the realm of those in the community, and in fact it is psychoanalysts who have the best tools to counter asymmetry, but it is notable that it appears harder to do within the community of colleagues than it is with patients. In other words, while there is a trend within treatment towards more intersubjective modalities with active considerations of the two subjectivities, there continues to be shades of a classical, asymmetrical modality within training (discussed in the following sub-section) and collegial narrative.

One last note on the use of theory and the language we use to talk with one another, is in the consideration of the use of stories, of narratives, with patients and also amongst ourselves. While theories may or may not be on the forefront of a clinician's mind, theories do shape narratives and stories of what we are doing. We use them to make sense of and find coherence, in what Weisel-Barth (2019) calls "theory stories." Weisel-Barth describes the oversimplifying and de-complexifying that happens when there is over-reliance on theories, when they are not held lightly, as Orange (2003), in referencing the philosopher Charles Peirce, reminds us. Weisel-Barth (2019) writes:

> Because of their fixed simplicity, many contemporary analysts choose to mix and match theory stories in order to expand understanding, to draw from different perspectives as each seems relevant to a particular interaction. Currently, I use analytic theories instrumentally, not as instruments of truth but as they deepen the meanings of specific clinical situations. However, that we borrow and meld ideas from different models and language games makes it sometimes seem that we are constructing theoretical Towers of Babel. (p. 488)

Weisel-Barth is speaking to the larger conundrums of using theories, but in relation to the use of neuroscience and the tensions, it is again worth considering a vulnerability in psychoanalysis, to become calcified and closed in one's thinking, as another shaper of the tensions itself, that a stridency in use of theory becomes counter and hindering to psychoanalysis' ultimate goal of complex thinking. The notion of this being a particular vulnerability in psychoanalysis is pointed out here because there are cultural dynamics, particularly insularity, that can be part of the forces that can embed calcified thinking.

Insularity in the community.

Within both their community and aspects of psychoanalytic practice, participants noted insularity: the individual modality of working alone, little collaboration, and factors in psychoanalytic training that were directly described by a number of participants as having insular and authoritarian aspects.

Some of these factors are typically necessary. Confidentiality and privacy are essential to mental health treatment and within psychoanalysis and the centrality of the therapeutic relationship also adds another level of guarded protectivity of that relationship. A number of participants noted that it felt a betrayal to privacy to collaborate with other professionals or that talking with other professionals could add complicating interferences into the treatment process that could undo a sense of safety and trust.

It has also been observed that the dynamics of conferences and workshops aren't generally interactive, but tend to be structured in a one-directional, didactic approach that leaves little room for within-discipline collaboration and conversation. This dynamic also lines up with observations of those professional communities, the literature, and the insularity that was noted in the data, which reflect how talking with one another, sharing information, exploring questions, theories, and new ideas still can have a hierarchical power dynamic. That cultural dynamic also seems representative of historical training beliefs and the ways training and case discussions are structured, in combination with more previously discussed authoritarian shades in how theory is used. While the integration of relational and intersubjective beliefs continues to challenge those

hierarchical, power dynamics, the exploration into the neuroscience and psychoanalysis tensions provides a particular view that suggests that shift is slow in the making.

Training and psychoanalytic education is one related factor. Most participants noted that the training organizations were, in a general sense, problematically insular. No participant argued that this was ok; in fact, most participants offered those comments without prompt quite eagerly. It was clearly understood as a concern. Psychoanalytic literature has also discussed this issue and there are some helpful perspectives to consider in this arena. Barchat (2000) describes the replication of family dynamics in the cohort learning environment that also elicits a wish for a "new, better family as they become accepted members of the psychoanalytic community" but also, and relevant to this discussion, in the context and awareness of the "(royal) lineage from Freud on down through senior members, training analysts, and instructors to candidates" (p. 72). Arlow (1982) also described that the impact of hierarchies in the training communities in conjunction with family wishes and fantasies, elicits ambivalence and split structure of safe/unsafe or trustworthy/untrustworthy. He describes that those splits, when ambivalence and hostility are unaddressed, can lead to dogmatism. While Barchat (2000) and Arlow (1982) further discuss the opportunities for working through conflicts and wishes on the path towards a more integrated and adult position of self within the community, the narratives from participants in conjunction with observations suggest the re-playing of conflicts, hierarchies, and power differences still is at play in the community beyond training. Further, participant comments and concerns regarding insularity line up with psychoanalytic education that Kernberg (2000) described, specifically infantilization of the psychoanalytic candidate, scientific isolation and

ignorance, and authoritarianism and arbitrariness. Twenty years later, descriptions and perspectives that participants offered indicated that these dynamics can still persist, even though participants also communicated their similar concern about the inherent authoritarian and insular problems within the training organizations.

These points are noted as another factor that shape dialogue and narratives, that impact the potential for what Weisel-Barth (2019) described as calcification in how theories are used. The sense of otherness and the right and wrong, authoritative aspects of how training is conducted and handed down, is a particular concern to the debate of neuroscience as it is a factor in maintaining tensions. It adds to the barriers against not only more complex ways of thinking, but more complex ways of talking to each other that might otherwise offer growth and complexity towards what Orange noted in the concept of emergence, or what Aron (1992) and Burke (1992) discuss in the dance between asymmetrical/symmetrical ways of approaching interactions and shared knowing. It is a factor that can potentiate what Weisel-Barth (2019) notes as the risk of creating theory stories that are ultimately Towers of Babel, or, as Palombo (2000) notes, head the way of Alice's adventure in losing track of coherence with reality, and perhaps more importantly for purposes here, with each other.

Summary, Bias, and Considerations Going Forward

As points in the exploration of this dense topic have already been clarified and sometimes redundantly stated, the larger questions and considerations for the road ahead will be summarized. Due to the nature of the subjectivity of this study, the following summary will proceed with first person, as these are understood as points made not

objectively, but entirely from my perspective, as the researcher, as I have learned through exploring this topic. They are reflections, interpretations, and statements that ultimately come out of my view.

1. As to the specific topic of neuroscience, the complexity of all participants' thinking and their valuing of subjectivity there is an important conversation in determining what is the risk exactly for reductionism. It seems the risk is in how one uses theory, or how Weisel-Barth (2019) describes how our theory stories get calcified. This is not a problem specific to neuroscience, though neuroscience has other conundrums attached to it because it is a discipline, ultimately, of facts. Neuroscience has become symbolic of a larger, multi-faceted problem with linear, authoritative, thinking and hence there may be overreach in the reaction to discount it. Neuroscientific information isn't inherently reductionistic, but it can be used that way, as can theory to discount it.
2. In considering inner realities and outer realities, subjective experience versus objective facts, there will always be tensions in putting the complete picture together. It is why as Orange (2000) and others have called this the impossible profession. It doesn't seem that the general argument to solve this are to cut out outer realties and facts, even though the particular suspension of reality in the session room is crucial for understanding and growth. But what do we do with them, exactly? People have lives, families, jobs, decisions, financial strains, health concerns, and in regards to this topic, individual, neurobiological systems that shape ways of learning, experiencing, and organizing those parts of our worlds and the feelings that go along with them. When we can't quite grasp a patient's

outer reality, which will always have limitations, is there an over-tendency to focus on the inner realities instead of inviting and inquiring more about the outside? It seems there is a risk to do so, at the cost of better understanding. There are places in understanding subjectivity that can account for those facts, those real-world experiences, that deepen our understandings and don't reduce them, but those conversations about doing so, the challenges and benefits, are still missing in our conversations.

3. Similarly, when we talk about clinical ideas that push against or break out of the psychoanalytic frame, whatever that frame may encapsulate to a clinician personally or theoretically, can we approach challenges and questions to those frames with a conscientious openness, yet without losing a necessary skepticism and critical thought? The culture within psychoanalytic communities, while noting that they vary from group to group, does have a general, problematic, and ironic tendency to closing down conversations. As the field embraces intersubjective and constructivist views, there is a need to utilize those perspectives in our own professional dialogue, our ways of shaping those communities we are a part of and opening dialogues with students and clinicians when they enter those communities.
4. Additionally, as regards to education and training, there are important conversations to enter about the role of teachers and supervisors in how to maintain critical thinking and a dialogic position. This may seem tangential to the topic of this study, but problems in insular and authoritarian hierarchies within training organizations emerged with every participant in some form or another.

> Participants seemed almost bursting to add that perspective. That theme spoke to a need for an emphasis on attending to how we know, challenging what we know, and modeling more complex dialogues within clinical education. It is a reminder, or perhaps an urging, to embed critical thought about theory and beliefs in all classes from the very first one, study theoretical ancestors closely, but equally challenge them. Much rests on teachers' and supervisors' attitudes towards difference of opinion, and this exploration has made the importance clearer to me of entering those dialogues with attention to both symmetrical and asymmetrical positions, of being conscious to support dialogues that counter reductionism without becoming so pluralistic that coherence is lost. And by coherence, I mean that ultimately it is about how we think about what we do and what we choose to do, with depth of thought, to be most helpful to painting the picture of experience and addressing the pains of being human.

I will also discuss a few notes on the dynamic of researcher bias in order to position final points of the study. Researcher bias is understood as a factor in the development of the questions themselves, the process of the interviews, the analysis of the data, as well as the conclusions. It is noted that someone who might also be close to the topic and close to the same communities as the participants, might develop different perspectives and interpretations.

A previous foregrounding section was included in the second chapter and clarifies my general positions to the questions posed. It will not be restated here in detail, other than to note a few points in the evolution of my thinking through the research process. For example, in the last line of the foregrounding statement, I wrote that the

foregrounding was provided to "guard against researcher bias and prejudice," an idea that became a misnomer. It would have been better stated as offering elucidation of researcher bias and perspectives, as they are inevitable, and need to be considered in as a constructive way as possible to frame the study and its discussion. I had noted Gadamer's (2004) point that "the inevitability of the investigator's subjectivity as part of the process of getting close to the data and the dialectic tension between what is familiar and unfamiliar" (p. 481). The hermeneutic and intersubjective dynamic of that position became something I only understood in actual practice once I truly got into the analysis and then began to organize my conclusions. However, more importantly, I did not understand how the concepts of subjectivity and intersubjectivity would ultimately be important not just for the methodology, but for the topic itself. There was on one hand an overt focus on subjectivity and intersubjectivity as important concepts to be kept central to the methodology of this project, but was equally a focus inherent in multiple levels of the debates themselves. Yet, on the other hand, there were also places in the themes of the narratives, and of the culture that impacted those narratives, that suggested the benefits of subjective and intersubjective understandings could be run over by other problematic dynamics. The concern that complexity, as a foundational concept, would be a missing element in utilizing neuroscience, had become a paradoxically constricted concept in the ways the topic is approached and talked about in the larger world of psychoanalysis, except, and more importantly, in closer conversation, when there was more space and less constriction to talk about the topic.

The increasing complexity of the data was an unexpected outcome that came only out of continually getting closer to the data. I was surprised at how the more I revisited,

analyzed, categorized, listened, and played with the organization, the more complex, nonlinear, and less binary the data became. This complexity spoke to a number of dynamics that seemed to push themselves forward about the topic and beyond, specifically that there is complexity that gets lost when one is not close, that distance and cursory levels of experience leave more potential for a binary way of thinking. Those binary ways of thinking that are reflected in multiple levels of this topic: tensions of for or against and in or out, tensions in the larger ways of how we think in psychoanalysis ('is it psychoanalytic or not?'), and tensions in how we interact and talk with one another in the psychoanalytic field. Only a week prior to writing this section, a member of a professional study group that I attend commented in her case discussion that she wasn't sure if "the psychoanalytic police" would be showing up because of an approach she took with a patient. There is a policing tone that still very much hovers in our field, perhaps hovers in all of us, but which, thankfully, also has counterweights. The analogous process of getting closer to the data and the complexity that emerged, speaks to a larger challenge within the field to be able to talk to each other about our perspectives, something that has had bumpy constrictions for a number of historical, cultural, and theoretical reasons. To me, this is the more important outcome of the exploration, the importance of attending to the pitfalls in our own knowing and how we relate to our colleagues and those we are training in that knowing.

In true hermeneutic sense, I quite literally saw the data differently through the iterations of spending time with it. And perhaps most importantly, I found greater appreciation for all participants points of view. I tried to approach the interviews with conscientious respect and openness from the very start. Nonetheless, I could find myself

having negative, internal reactions of ‘ugh, come on’ moments. However, by the end of an interview, and even more so by the end of the visits to the data and its analysis, the judgement in my initial reactions softened and the view was wider. I learned and grew from digging in. While it may sound overly dramatic given that I met with participants for two hours and talked about one narrow topic, I honestly felt there was an expansion of understanding an other’s humanity more deeply than before.

As I circled back and forth into the narratives and considered the larger, interrelated issues, I couldn’t help but think about the larger social pains we are facing right now, the need to be on a side and place ourselves against something because our morals call us to do so. As much as we want to build bridges and enter in more conversations with those we disagree with in hopes of emergent, better, and new understandings, there are also clear realities of hate, destruction, oppression, and societal illness that is causing pain and death. Clear realities where we must draw a line, take a side, and say no. There are facts in this world and there are subjective, personal experiences that circle around in the riots of change, riots that can blind us from each other’s humanities. We are challenged in the larger spheres and in the narrow spheres to navigate the two worlds of facts and subjectivity. This study started out looking at beliefs around one specific topic, but it has landed as a photograph, so to speak, of something about ourselves as psychoanalytic clinicians where we can do better. It is a call to do better in the people we work with and discusses cases with and teach and supervise and share stories about our work, to keep finding ways to know better, but also tolerate where we or the other don’t know, tolerate and air the inevitable judgements and frustrations

without letting them get in the way. It means walking in the messy forces of objective and subjective worlds, but who else, as a discipline, is better equipped to do so?

Appendix A

Consent Form

Institute for Clinical Social Work
Research Information and Consent for Participation in Social Behavioral Research
Psychoanalytic Attitudes Towards Integrating Neurobiological Perspectives Into Treatment Paradigms

I,_____, acting for myself, agree to take part in the research entitled Psychoanalytic Attitudes Towards Integrating Neurobiological Perspectives Into Treatment Paradigms.

This work will be carried out by Christina Peters, MA under the supervision of Jennifer Tolleson, PhD, and conducted under the auspices of the Institute for Clinical Social Work at Robert Morris Center, 401 South State Street; Suite 822, Chicago, IL 60605; (312) 935-4232.

Purpose

The purpose of this study is to explore current perspectives within the psychoanalytic community towards the use and relevance of neurobiological perspectives. The impetus for this study arose from notable tensions and differences within the psychoanalytic literature regarding positions on this topic. Amongst conference discussions and collegial conversations, this topic has been known to incite strong feelings. The study therefore hopes to shed some light on those tensions and perhaps offer some understanding as to what impact the topic has, or has been impacted by, the psychoanalytic community and its current beliefs.

Specifically, this study seeks to gain in-depth descriptions of those attitudes to more fully understand the differing positions and what this may reflect about the current culture within the psychoanalytic community. Participants in the study are required to be both experienced clinicians and teachers in the psychoanalytic field. As teachers, they are imparting ideas to newer clinicians and those in training. Participants should also have an interest in discussing this topic. By focusing on this particular group, the study hopes to capture an in-depth view of current and active attitudes.

The study will utilize interviews and then analyze the content to extract relevant themes. The researcher is interested in whether or not participants see neurobiological perspectives as relevant to their work and the paradigms of psychoanalysis, and, more importantly, why or why not.

Procedures used in the study and duration

The study will entail two 60-90 minute interviews with each participant that will be transcribed. During the interviews, notes will be taken by the researcher. A process of systematic analysis using the methodology of an interpretive phenomenological analysis will be used to cull themes and interpretations from the content. Safeguards to ensure as accurate interpretations as possible include a participant review in which the researcher will follow-up with the participant and review interpretations of the content together.

No financial payment is available for participation in this study.

Benefits

There are not likely to be any direct benefits for the participant other than hopefully engaging in a topic of professional interest and the benefit of having supported the exploration of a current debate in one's field. It is hoped that the results will culminate in a helpful contribution towards the understanding of current psychoanalytic culture and where it is positioned theoretically.

Costs

There should be no costs to participants other than participants' time. The researcher will meet the participant at each participant's professional office or otherwise agreed upon professional location that is convenient to the participant.

Possible Risks and/or Side Effects

It is not expected that there will be any inconveniences or significant negative emotional responses to participation in the study, however participants should be aware that the principal investigator is also professionally involved in the same professional community as the participant. Therefore, there is some risk of feeling professionally vulnerable. The study seeks to maintain not only strict confidentiality, but the researcher will also make every effort to ensure participants feel safe and free to share their honest opinions. While it is typical that the discussed topic can be emotionally heightened, the intention of the study is to provide a comfortable and confidential space to discuss participants' honest views and beliefs, even if they are strongly felt positions. Emotional reactions within the discussion will be welcome during the interviews. Participants should be assured that there are no right or wrong answers.

A. Describe the precautions taken to minimize risk.

Every effort will be made to ensure that participants feel emotionally safe and know that an open and honest discussion is valued. A sense of professional vulnerability further requires the need for measures to insure that misrepresentations in the analysis of the data are significantly minimized. Such measures to ensure the most accurate interpretations and analysis are described in the methodology section of the proposal.

Privacy and Confidentiality

All information and content gathered during the research process is kept strictly confidential. While committee members may refer the researcher to possible participants for the study, the names of actual participants and any identifying information will only be known to the researcher. The research committee members and a second researcher used for double-checking the analysis will not have access to participant names or identifying information. Participant identifying information will be kept in a locked file only available to the researcher and each participant will be given a numerical code name to be used during the analysis and any discussion with research committee. Once the research has been completed, the identifying information (kept on paper only and not on electronic interface), will be shredded by the researcher and disposed of confidentially.

Subject Assurances

By signing this consent form, I agree to take part in this study. I have not given up any of my rights or released this institution from responsibility for carelessness.

I may cancel my consent and refuse to continue in this study at any time without penalty or loss of benefits. My relationship with the staff of the ICSW will not be affected in any way, now or in the future, if I refuse to take part, or if I begin the study and then withdraw.

If I have any questions about the research methods, I can contact Christina Peters (Principal Researcher) at this phone number: 312-502-9959, or Jennifer Tolleson, PhD (Dissertation Chair/Sponsoring Faculty), at this phone number: 312-935-4232.

If I have any questions about my rights as a research subject, I may contact Dr. John Ridings, Chair of Institutional Review Board; ICSW; At Robert Morris Center, 401 South State Street; Suite 822, Chicago, IL 60605; irbchair@icsw.edu.

Signatures

[All consent forms must be signed and dated. They must be explained to the participants and witnessed by the person who is explaining the procedure.]

I have read this consent form and I agree to take part in this study as it is explained in this consent form.

_____ _____

Signature of Participant Date

I certify that I have explained the research to_____(Name of subject) and believe that they understand and that they have agreed to participate freely. I agree to answer any additional questions when they arise during the research or afterward.

_____ _____

Signature of Researcher Date

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