

WORKING AT THE BOUNDARIES OF INTERSUBJECTIVITY:  
TOWARD A CLINICAL CONCEPTUALIZATION OF  
SOMATOSENSORY TRANSMISSIONS  
IN PSYCHOTHERAPY

by

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## ABSTRACT

Working at the Boundaries of Intersubjectivity:  
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by

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This investigation examines a relatively narrow category of clinical psychological phenomena known as *somatosensory transmissions*—that is, clinicians' experiences of spontaneous, idiosyncratic physical sensations or bodily symptoms occurring in meaningful relation to the psychotherapy process. I contend that somatosensory-level transactions between patients and therapists constitute a coherent category of clinical phenomena worthy of greater recognition, and more rigorous scrutiny, by psychotherapists. I evaluate existing scholarship relevant to psychotherapy-related somatosensory transmissions and propose a conceptual framework that better organizes the limited-but-growing number of references to these phenomena. I highlight and attempt to address certain insufficiencies within the existing psychotherapy literature relevant to somatosensory transmissions in an effort to formulate more compelling clinical and conceptual understandings of these phenomena and consider their broader implications for evolving psychotherapeutic models.

To bolster my proposals, I identify additional evidence for somatosensory transmissions within empirical research-based disciplines including interpersonal

neurobiology, social neuroscience, and developmental science. I focus especially on the work of social neuroscientists who have proposed models of human empathy built upon empirically-validated neurophysiological processes known as perception-action mechanisms. Essentially, these mechanisms are believed to underlie human tendencies to mimic—at neurophysiological levels—certain behaviors, expressions, and sensations observed in others. I review extensive empirical research that supports the existence of perception-action mechanisms—as well as their central role in human empathic functioning and interpersonal relations—and propose conceptual links between these findings and psychotherapists' experiences of somatosensory transmissions.

On this basis, I propose and elaborate an empirically-grounded conceptual model for psychotherapy-related somatosensory transmissions that: 1) better explains how somatosensory transactions between patients and therapists occur, 2) better anticipates with which patients, or under what specific clinical circumstances, these transactions are prone to occur, and 3) offers technical guidance to clinicians for making optimal therapeutic use of these clinical episodes. An illustration of psychotherapy-related somatosensory transmission is also presented to: 1) emphasize the range of clinical circumstances most often associated with somatosensory transmission between patients and therapists, and 2) further elaborate the practical and theoretical implications (and complications) of conceptualizing the psychotherapy process from a more “thoroughgoing two-person” intersubjective clinical framework (Wachtel, 2008).

## ACKNOWLEDGMENTS

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## TABLE OF CONTENTS

	Page
ABSTRACT .....	iv
CHAPTER 1 Introduction .....	1
I. Working at the Boundaries of Intersubjectivity .....	9
II. A Theoretical Investigation of Somatosensory Transmissions in Psychotherapy.....	17
III. Summary & Chapter Organization.....	19
CHAPTER 2 Somatosensory Transmissions: A Critical Review of the Psychoanalytic & Psychotherapy Literatures .....	25
I. Organizing the Relevant Psychotherapy Literatures .....	27
II. A Comprehensive and More Precise Clinical Category .....	35
III. A Comprehensive and Critical Review of the Psychotherapy Literatures .....	41
Classical Psychoanalysis .....	44
Object Relational Psychoanalysis.....	72
Contemporary Relational Psychoanalysis.....	122
Other (Non-Psychoanalytic) Psychotherapies .....	152
IV. Summary .....	182

## TABLE OF CONTENTS (CONTINUED)

	Page
CHAPTER 3	
Somatosensory Transmissions: Recent Advances in Empirical Research .....	185
I. Parsing the Subcomponents of Somatosensory Transmission Phenomena .....	192
II. The Neuroscience of Empathy .....	194
The Perception-Action Model of Empathy .....	199
Infant-based Empirical Research.....	204
Adult-based Empirical Research.....	210
III. The Neuroscience of Perceiving Physical Pain in Others.....	221
IV. Summary .....	273
CHAPTER 4	
Somatosensory Transmissions: A "Thoroughgoing Two-Person" Conceptual Framework Informed by Social Neuroscience .....	277
I. Research Question 1 .....	279
II. Research Question 2 .....	289
III. Research Question 3 .....	300
CHAPTER 5	
Somatosensory Transmissions: Clinical Implications of a "Thoroughgoing Two-Person" Conceptual Framework.....	313
I. Mr. M. -- A Case of Severe Neuropathic Pain.....	316
REFERENCES .....	336

## CHAPTER ONE

### Introduction

Over the past several decades rapidly accruing and converging bodies of empirical research from disciplines ranging from interpersonal neurobiology (Hofer, 1984; 1987; Schore, 1994; Siegel, 1999; Cozolino, 2002; DeVries et al., 2003), to the functional neurosciences (Panksepp, 1998; Preston & de Wall, 2002; Adolphs, 2003; Meltzoff & Decety, 2003; Decety & Jackson, 2004; 2006), to sociophysiology (Gardner, 1997; Adler, 2002), and mother-infant ethology (Trevvarthen, 1979; Beebe et al., 1998; Stern et al., 1998; Trevvarthen & Aitken, 2001) have demonstrated the critical significance of relatively non-conscious, nonverbal forms of “communication”—or, mutual-regulation—in human psychosocial development and the ongoing maintenance of healthy psychological functioning throughout the lifespan. In other words, empirical research disciplines have increasingly been able to document and validate a concept that psychotherapists have long understood—healthy psychological functioning depends to a great extent upon the qualities of one’s relationships and, in particular, relatively subtle aspects of one’s past and present interpersonal experiences.

These developments in allied research disciplines have understandably come to inform contemporary conceptualizations of the psychotherapy process. After all, these same non-conscious, nonverbal, interpersonal mechanisms—not necessarily within the conscious awareness or control of either psychotherapy participant—can also be crucial to a given treatment’s therapeutic potential. Rather concerted efforts, in fact, have been undertaken by many contemporary clinician-theorists to translate the insights of the above-mentioned empirically-based research to the clinical realm—

informing clinicians' evolving conceptualizations of the human mind—or, more specifically, the human mind in relation to others (Schore, 1997; Siegel, 2001; Cozolino, 2002; Bucci, 2005; Frie, 2008; *Boston Change Process Study Group*, 2010).

As just one example, Bucci's (2005) multiple-coding theory—which identifies symbolic *and* sub-symbolic information-processing mechanisms relevant to all dyadic interactions—has integrated empirical findings from both neuroscience and mother-infant-based research in developing a conceptual framework, as well as a tool for ongoing clinical research, that promotes clinicians' improved understandings of the various levels of communication (including an implicit, somatic level) that can characterize interactions between patients and psychotherapists.

Other such integrations of neuroscience-based discoveries and psychoanalytic theory have led to recent refinements of clinicians' conceptualizations of a range of implicit, interpersonal mechanisms relevant to the psychotherapy process—including countertransferences (Gallese et al, 2007), projective identifications (Roeckerath, 2002; Grotstein, 2005; Reis, 2006; Arizmendi, 2008; Meissner, 2009), empathic attunements (Gallese et al, 2007; Watt, 2007), and enactments (Ginot, 2007; 2009)—which are increasingly being understood as mediated by interacting psychological *and* neurophysiological (i.e., relatively non-conscious, hard-wired) processes and potentials.

In this dissertation project, I will be proposing a similar such refinement to psychoanalytic theory and clinical practice. In particular, I will propose expanding the *range* of implicit communicative and mutual-regulatory mechanisms that has been conceptualized as relevant to the psychotherapy process. I focus on a specific category of clinical psychological phenomena referred to herein as *somatosensory transmissions*—or, those instances in which clinicians experience spontaneous,

relatively idiosyncratic physical sensations or bodily-based symptoms occurring in meaningful relation to the psychotherapy process. My overarching objective is to provide sufficiently compelling support for the idea that such somatic-level transactions between patients and therapists do, indeed, constitute a distinct and coherent category of clinical phenomena worthy of greater recognition, as well as more rigorous scrutiny, by broader communities of psychotherapists.

I begin this investigation by conducting a thorough review and evaluation of existing scholarship relevant to psychotherapy-related somatosensory transmissions while, at the same time, generating what I see as a much-needed framework for better organizing the limited-but-growing number of pertinent references scattered throughout the professional psychotherapy literatures. In doing so, I highlight certain rather significant insufficiencies in the existing psychotherapy literatures. Most conspicuously absent, I argue, is a more compelling theoretical framework from which to: 1) better explain *how* such somatosensory transactions between patients and therapists might take place, 2) better anticipate with *which* patients, or under *what* specific set of clinical circumstances, these types of transactions may be most prone to occur, and 3) provide technical recommendations to clinicians regarding how to make better therapeutic use of these types of clinical episodes.

Following my review of existing psychotherapy-related scholarship relevant to somatosensory transmissions, I turn to empirical research literatures of several allied disciplines to psychotherapy—such as interpersonal neurobiology, the functional neurosciences, and developmental science—in an effort to identify additional compelling sources of evidence to support improved clinical conceptualizations and, eventually, broader recognition of somatosensory transmission phenomena by

psychotherapists. In particular, I focus on the empirical and conceptual writings of a group of social neuroscientists (Preston & de Wall, 2002; Meltzoff & Decety, 2003; Decety & Jackson, 2004; 2006) who have proposed neurophysiologically-based models of human empathy that are built, at least in part, upon empirically-validated neurophysiological mechanisms known as *perception-action* processes (Prinz, 1997; Prinz & Hommel, 2002; Sperry, 1952). Most essentially, perception-action processes refer to the underlying mechanisms responsible for the human central nervous system's tendency to *mimic*, at least at neurophysiological levels, observed behaviors and expressions of others. A rather large body of empirical research, in fact, supports the existence of these mechanisms and their central role in human empathic functioning and interpersonal relations.

More importantly for my purposes, however, these still-evolving neurophysiological models of human empathy have more recently been expanded to include complementary neurophysiological processes—*perception-sensation* mechanisms—that I view as especially relevant to my efforts to construct an empirically-grounded conceptualization of psychotherapy-related somatosensory transmissions. In order to better examine the empirical basis for such perception-sensation mechanisms, I conduct a thorough review of recent neurophysiological investigations of human *empathic pain perception*—noting, in particular, empirical evidence of the specific interpersonal contextual variables that have been demonstrated to influence an *observer's* neurophysiological-level responsiveness to *witnessing* another person's experience of physical pain.

Therefore, in addition to utilizing recent neurophysiologically-based research findings relevant to human empathy and empathic pain perception to construct a more

empirically-grounded conceptual framework for psychotherapy-related somatosensory transmissions, I also rely to some extent upon this same empirical research to inform the question of *which* specific clinical circumstances may be most likely to involve instances of somatosensory transmission. In the context of further elaborating this more coherent, empirically-grounded conceptualization of psychotherapy-related somatosensory transmissions, I also offer a series of clinical recommendations—aimed at assisting clinicians in determining how to consider and work most effectively within the psychotherapy process with an increased awareness of the clinical potential for somatosensory transmissions between patients and therapists.

One of the central contentions informing this project is that as contemporary psychoanalysis, in particular, continues its recent progression toward more “two-person” conceptualizations of the psychotherapy process (Balint, 1979; Greenberg & Mitchell, 1983; Hoffman, 1983; 1991; Stern, 1983; 1989; Atwood & Stolorow, 1984; Eagle, 1984; Modell, 1985; Mitchell, 1988; Ghent, 1989; Aron, 1990; Gill, 1994; Wachtel, 2008; 2010)—that is, toward more interpersonally-contextualized theoretical and technical foundations—it may more readily engage in a thorough examination and more coherent integration of what I view as a quintessentially “two-person” category of clinical phenomena. As such, I will argue that somatosensory transmission phenomena are best conceptualized from the perspective of a “thoroughgoing two-person theoretical structure” (Wachtel, 2008; p. 43)—consistent with many of the principles of contemporary relational psychoanalysis.

In his rather incisive analysis of what too often become confusing and overly contentious debates between competing psychoanalytic clinical orientations with regard to the appropriate position of the analyst vis-à-vis the analysand—that is, over

what constitutes the most auspicious therapeutic balance between therapists' dual roles as both facilitators *of*, and active participants *within*, the psychotherapy process—

Wachtel (2008) has made the following clarifying and integrative assertion:

“If a two-person psychology is adequately understood and carried through, by its very nature it includes what is commonly thought of as a one-person psychology. The premise of a thoroughgoing two-person psychology is not that “inner” processes do not matter—*of course* they matter, and matter greatly—but that those inner processes are not adequately understood unless they are understood in context, and especially in the context of continuing transactions and interactions with others” (p. 49; italics from original).

In other words, Wachtel (2008) argued that—to the extent that so-called “one-person” and “two-person” metapsychological perspectives in psychoanalysis and psychotherapy are not merely caricatures, but do, in fact, represent and continue to inform therapists' actual technical stances and clinical considerations with regard to patients—these competing vantage points on the psychotherapy process needn't be viewed as mutually exclusive. On the contrary, Wachtel described a “fully two-person psychology” in the context of psychotherapy as one in which:

“the affective exchange between *actual people* takes center stage, and one comes to see and understand the profound ways in which the moods, fantasies, desires, perceptions, and expectations of each intersect with, create, transform, and recreate the moods, fantasies, desires, perceptions, and expectations of the other. [A fully two-person psychology] is not a psychology that ignores those “inner” states or qualities. Rather, it aims to deepen and expand our understanding of them by looking not only at how they are structured and manifest themselves in each individual's psychological economy but also at how they are dynamically and mutually elicited in the living transactions with others' inner lives” (p. 48; italics from original).

I can think of almost no more appropriate anchor for clinicians—no better way to help them remain as conscious as possible of these relatively fluid foundations of their interactions with patients, and aware of their own necessary *immersion* within such interactions—than to attempt to more fully elaborate the potential involvements of therapists’ bodily experiences within the psychotherapy process. In other words, by more explicitly recognizing and conceptualizing clinically-relevant neurophysiological potentials involving therapists’ own physical sensations—in terms of psychotherapy-related somatosensory transmissions occurring at the relative boundaries of the intersubjective field—we, as therapists, I would argue, may be more readily reminded of the clear potential for such deep therapeutic levels of interactivity and connectedness between ourselves and our patients and, thereby, guard against the twin tides of reification and reductionism in our clinical formulations.

An illustration of psychotherapy-related somatosensory transmission based on my own personal clinical experiences with a severely traumatized man is also presented and discussed in order to further emphasize the range of relatively extreme clinical circumstances that may be more likely to be associated with somatosensory transmission between patients and therapists, and to further elaborate the practical and theoretical implications (and complications) of conceptualizing the psychotherapy process from such a more “thoroughgoing two-person” psychoanalytic perspective (Wachtel, 2008).

In summary, my objectives in this primarily-theoretical dissertation project are threefold: 1) to provide an organizing framework from which to review and evaluate the contributions and limitations of existing psychotherapy literatures relevant to

somatosensory transmission phenomena, 2) to thoroughly examine recent advances in allied empirical disciplines—in particular, evidence supporting the existence of implicit, non-conscious, bodily-based, and neurophysiologically-mediated processes involved in human empathy and empathic pain perception—which may inform better, more coherent understandings of psychotherapy-related somatosensory transmissions, and, lastly, 3) to propose a sufficiently compelling conceptualization of somatosensory transmissions as to promote the relative *expansion* of current conceptualizations of psychotherapy-related intersubjective phenomena—and more explicit recognition of the potential for meaningful somatosensory-level transmissions between patients and therapists.

Furthermore, I would hope that accomplishing these objectives could eventually lead to more widespread awareness and, gradually, more empirical investigation and validation of somatosensory transmission phenomena by psychotherapists and psychotherapy researchers.

Although I draw extensively upon the theoretical and clinical literatures of various psychotherapeutic orientations, as well as from empirical disciplines such as interpersonal neurobiology and the functional neurosciences, this dissertation will primarily focus upon psychoanalysis, psychoanalytic theory and psychoanalytically-oriented clinical practice. Unless otherwise specified, I use the terms *psychoanalyst*, *clinician*, and *therapist* interchangeably throughout to refer to members of the larger community of psychoanalytically-oriented psychotherapists for whom this dissertation will be most relevant.

### Working at the Boundaries of Intersubjectivity

My personal interest in this particular category of clinical phenomena—that is, somatosensory transmissions—stems from my work at Bellevue Hospital’s Pain Management Center. In my capacity as a clinical psychology extern, I worked with a broad range of patients suffering from chronic physical pain, and, during the course of this work, experienced some rather unusual *physical* sensations in my own body that seemed to relate to certain patients with whom I happened to be working at the time. Through clinical supervision, I was able to further examine these experiences from the perspective of determining their potential meanings and utility for the psychotherapies I was facilitating.

In a subsequent chapter of this dissertation (Chapter 5), I will provide a detailed case presentation based on my personal clinical experiences including multiple instances of somatosensory transmission between one particular patient and myself. Although I will expound upon this case in significantly more detail later, I will briefly introduce the case and some of the particulars of the clinical phenomena I encountered.

Mr. M. was a man of African descent whose English was so limited as to necessitate our sessions being mediated by a phoned-in, French-speaking interpreter. He arrived at the pain clinic nearly one year after his right arm had been accidentally scalded by hot cooking oil at a restaurant where he had worked as a dishwasher. He reported that his pain was no longer confined to his right arm, and that it had now migrated to his right shoulder, neck and upper back. He also complained of frequent headaches and dizziness.

Having immigrated to the United States from his western African homeland only a few weeks prior to his accident, Mr. M. had arrived in this country with the plan of sending much of his earnings back to his mother and *nine* younger siblings—who Mr. M. reluctantly admitted to me were “barely surviving” the ongoing civil war in his home country. Following his accident, Mr. M. had been completely unable to work and reported that he had even lost contact with his mother and siblings; He was clearly carrying a compounding and debilitating sense of shame regarding his inability to provide for his relatives back home.

When I met him, Mr. M., in fact, had no home. He slept on subways, and reported sometimes going days without food. He was also suffering from persistent nightmares that he described as “going back” to the scene in the restaurant. Mr. M. easily met criteria for both major depression and post-traumatic stress disorder.

Essentially, Mr. M. had spent much of the year following his traumatic injury almost completely alone, wandering and living on the streets of a foreign city in which he neither spoke the native language nor sufficiently understood the culture or its social support services. He was acutely depressed and without resources for food or shelter. Mr. M. managed to find his way to Bellevue’s pain clinic nearly a year after his accident after he had reached such a state of desperation as to check himself into the emergency room—in more pain than he could bear and contemplating suicide.

Once again, I will have further opportunity to document in detail the progression of Mr. M.’s nearly two-year psychotherapy in Chapter 5. However, the most significant clinical moments, insofar as the conception of this dissertation were concerned, took place near the very beginning of Mr. M.’s treatment. What was most striking about these particular moments was that they involved sensations of physical pain, not in Mr. M.’s

body, but in *my own*. Furthermore, these pain sensations, which I experienced on two discrete occasions, were curiously confined to my own right arm, and, while my experience and re-experience of these specific pain sensations did, upon reflection, seem to correspond precisely to my meetings with Mr. M., I only became consciously aware of these sensations during moments when I was no longer in my patient's immediate presence (and would not begin to realize their particular clinical significance until well into our work together).

In the first of these instances, I experienced what was a mild-but-persistent sunburn-like sensation on the outside of my right arm. At the time, I remember asking my partner if we had taken any long car trips recently. The best approximation I could apparently come up with to account for the unusual sensitivity I was feeling to either fabric or touch was the throbbing ache of an irregular sunburn brought on by absent-mindedly hanging my arm out the passenger-side window for too long on a road trip. Needless to say, I had not been on such a road trip. Had it not been for the uncanny *re-experiencing* of what was by then a strangely familiar pain sensation on yet another Friday afternoon—corresponding precisely to the day of my subsequent meeting with Mr. M.—I might never have become aware of what I now believe were meaningful connections between my own *sensations* and my work with Mr. M. in psychotherapy.

I will elaborate in Chapter 5 what I believe to be the particular clinical significance of these episodes. But, what I want to emphasize here are some of my initial efforts to make sense of these experiences. Even after becoming aware of and contemplating the possible connections between this unexpected series of events, I still had to wonder whether—and, if so, how—such an apparent *transmission of physical sensation* could occur between my patient and me. Furthermore, I wondered what the

implications might be of this apparent *embodiment* on my part of my patient's pain symptoms—for example, in terms of evaluating Mr. M.'s present psychological condition and earlier trauma history, or even for assessing my own psychological readiness to work clinically with this particular patient.

Through many conversations that I had subsequently with colleagues and supervisors, I came to realize that my initially-quite-disconcerting *somatic* experiences, which ultimately seemed unmistakably related to my work with a distressed patient suffering from his own similar somatic symptoms—a “burning” pain in *his* right arm—were not as unusual as I had originally supposed. More than a few experienced and respected psychotherapists and supervisors with whom I spoke were able to relate similar such clinical episodes of their own, especially within the specific context of working with severely traumatized patients.

Given the many supportive anecdotes I managed to collect from clinician colleagues, I was surprised to subsequently discover that this particular type of somatic-level interaction between patients and therapists had not received more focused, coherent attention within the psychotherapy literatures. In fact, a rather exhaustive review of all relevant publications suggested some unsatisfying and contradictory conclusions.

The clinical phenomena, which I ultimately labeled *somatosensory transmissions*, has, in fact, been referred to previously within the psychotherapy literatures as: “kinesthetic empathy” (Berger, 1972; Dosamantes-Alperson, 1984; Kestenberg, 1987; Ragan & Seides, 1990; Dosamantes, 1992; Siegel, 2001; Pacifici, 2007; Pallaro, 2007; Sossin & Charone-Sossin, 2007; Vulcan, 2009), “body empathy” (Jacobs, 1973; 1991), “somatic experiences” as characteristic aspects of “the analyst's receptive function”

(Thomson, 1980), “body listening” (Lichtenberg, 1983; O’Shaughnessy, 1984; DaSilva, 1990), “somatic countertransference” (Bernstein, 1984; Simon & Bullock, 1994; Siegel, 1995; 1996; 2001; Dosamantes-Beaudry, 1997; Mathew, 1998; Wayne, 1998; 1999; Wyman-McGinty, 1998; Gross, 2008; Vulcan, 2009; Lombardi & Pola, 2010; Schore, 2011), “embodied countertransference” (Samuels, 1985; 1989; 2000; Field, 1989; Stone, 2006), “bodily countertransference” (Wieland-Burston, 1987; Wrye, 1996; Lombardi, 2008), “somatic correspondence” (Silverman, 1991), “maternal erotic countertransference” (Welles & Wrye, 1991), “embodied attunement” (Emery, 1992), “hypercathexis of the [analyst’s] somatosensory apparatus” (Agger, 1993), “sympathetic bodily resonance” (Raphael-Leff, 1996), “visceral mirroring” (Bacal, 1997), the “somatic intersubjective dialogue” (Dosamantes-Beaudry, 1997; 2003); “countertransference visceral somatic responses” (Anderson, 1998), “physical resonance” (Milch, 1998), “body countertransference” (Orbach, 2000; 2004; 2006; Dimen, 2001; Trautmann-Voigt, 2001; Pozzi, 2003, Orbach & Carroll, 2006; Blechner, 2011), “primitive bodily resonance” (Alhanati, 2004), “visceral resonance” (Knoblauch, 2005; 2006; Sonntag, 2006; Ginot, 2009; Sands, 2010), “the embodied transference-countertransference matrix” (Kuriloff, 2005), “visceral countertransference” (Sarasohn, 2005; Kavalier-Adler, 2006), “nonsymbolized embodied registers of interaction” (Knoblauch, 2006), “corporeal intersubjectivity” (Orbach, 2006), “embodied resonance,” (Stone, 2006), “sensory empathy” (Zanocco et al., 2006), “the analyst’s conscious and unconscious subjectivity residing in embodied states” (Sonntag, 2006), and “physical countertransference” (Laine, 2007).

At first glance, this might appear to be a rather substantial listing of scholarly references relevant to somatosensory transmission phenomena. However, significant

limitations of this existing literature became apparent upon closer inspection. First of all, as is clear from the long list of competing terms used to label somatic-level transactions between psychotherapy participants, there is no broadly accepted terminology for identifying and organizing references to this general category of clinical phenomena. Furthermore, one finds a surprisingly wide range of meanings attributed to these similar-sounding terms, ranging from an emphasis upon relatively *superficial* behavioral or gestural responses of the therapist (see “body empathy”; Jacobs, 1973; 1991) to *all-encompassing* terms that appear to subsume every manner of potentially physiologically-driven response of the therapist, including his or her sleepiness, distractedness, or erotic feelings or associations in relation to a given patient (see “body countertransference”; Orbach & Carroll, 2006). Certain aspects of such broadly defined “somatic-level” phenomena have been better examined than others within the existing psychotherapy literatures.

My designation of the term *somatosensory transmission phenomena* is intended to both: 1) better capture the phenomenological range of the broader category of intersubjective clinical phenomena and, in particular, highlight its potential underlying neurophysiological basis, and 2) more fully elaborate the potential extremes, or *boundaries*, of this range of intersubjective clinical phenomena, especially to the extent that an apparently increasing number of psychotherapy-related publications have begun to suggest that relatively spontaneous, idiosyncratic *physical symptoms* or *sensations* can sometimes result from psychotherapy-related interactions. These more dramatic examples of *somatosensory transmission phenomena*—occurring at the relative boundaries of the intersubjective field—will be the primary focus of this dissertation project.

As might be expected in a literature that has not previously been organized, existing references tend to reflect—in a relatively unexamined way—the underlying theoretical biases of individual authors representing various contemporary orientations to psychotherapy, which further adds, I believe, to the challenges of integrating these relevant contributions. Furthermore, only a relatively small number of existing publications have provided actual clinical descriptions of somatosensory transmissions. Very few of the existing articles relevant to somatosensory transmissions have speculated or attempted to elaborate upon potential underlying neurophysiological mechanisms that might be associated with such clinical occurrences. Nor have existing articles offered much in the way of technical considerations for making therapeutic use of this type of clinical episode. On this basis, and most importantly from the perspective of this dissertation project, I would argue that the existing psychotherapy literatures relevant to somatosensory transmission phenomena have failed to offer compelling, theoretically- and empirically-grounded conceptualizations from which to better understand these phenomena and their potential relevance to psychotherapy.

In other words, the relative number of articles that does mention any of a variety of terms representing, essentially, this same category of clinical phenomena—which I refer to as somatosensory transmissions—would seem to suggest the existence of a discrete category of clinical phenomena *worthy* of further consideration and examination. However, by failing to address the many unanswered questions regarding the conceptual basis for, and particular contextual circumstances surrounding, somatosensory-level transactions between patients and therapists, the existing literature has not only been limited in its ability to engage the fuller attention of broader communities of clinicians, but may also have inadvertently fostered the

unfortunate impression that somatosensory transmissions are rare, even “mystical”, theoretically-untenable phenomena that exist, if at all, somewhere on the periphery of our discipline far away from most of our daily case loads.

As I reflected further upon my clinical experiences with Mr. M., considered the range of reactions of my colleagues and supervisors, and made note of the unsatisfying gaps in our professional literatures on this subject, I realized that a more thorough investigation of somatosensory transmission phenomena could also represent an important opportunity to advance psychoanalytic theory and practice. Of particular interest to me, after conducting my review of the existing literature, was how such quintessentially “two-person” clinical phenomena—involving the meaningful conveyance, or *transmission*, of physical, presumably neurophysiologically-mediated, sensations between psychotherapy participants—could be treated in such a reductive relatively “one-person” manner within what was, admittedly, a still quite limited area of the psychotherapy literatures.

I began to envision this project as potentially a means for developing and further refining contemporary conceptualizations of the ways in which psychotherapists make use of their subjective somatosensory awareness and, in particular, more closely examining the psychological and *physical* boundaries of intersubjectivity—that is, the *range* (and limitations) of clinicians’ and patients’ somatic-level connectedness and interactivity within the psychotherapy process—and, at the same time, a means of promoting a “more thoroughgoing two-person” psychology within psychoanalytically-informed psychotherapy practice (Wachtel, 2008).

### A Theoretical Investigation of Somatosensory Transmission Phenomena

An empirical investigation of somatosensory transmissions would necessarily involve considerable, if not insurmountable, obstacles. There are impracticalities inherent to documenting clinicians' subjective experiences associated with past clinical encounters—especially, insofar as somatosensory transmission phenomena may, by definition, tend to be relatively *non-conscious* and, therefore, less accessible (or *acceptable*) to clinicians' conscious awareness. As such, it has been tempting to turn to the smattering of existing psychoanalytic and allied psychotherapy-related journal articles that does make reference to this category of clinical phenomena—as one particular form of *data* indicating that at least some clinicians do appear to be encountering these clinical phenomena in practice. However, owing to some rather significant limitations of this existing literature—namely, its lack of organization and the relatively small number of actual clinical instantiations of these phenomena—I have ultimately decided that a primarily conceptual investigation focused on integrating these existing clinical literatures with empirical literatures from allied disciplines, at the present time, offers the most significant potential contribution—that is, in terms of promoting more explicit consideration and examination of these clinical phenomena by psychotherapists.

A prospective *theoretical* investigation of somatosensory transmission phenomena comes, of course, with its own inherent challenges. It must begin by identifying terminology that clearly captures the phenomenology of the clinical category in question and, thereby, offers the potential of better organizing disparate references to these phenomena in the existing literature. This was, in fact, my primary

rationale for selecting a phenomenologically-descriptive, yet theoretically-neutral, label—*somatosensory transmission phenomena*—to encompass the extensive list of terms that has been designated previously.

A more thorough conceptually-focused investigation of this category of clinical phenomena than has been conducted previously must also provide evocative clinical depictions of actual somatosensory transmissions occurring within specific clinical contexts in order to better illustrate these phenomena—in order to engage the attention and imagination of clinicians and promote more conscious consideration of these types of clinical episodes and their relevance to broader clinical work. In addition to exhaustively compiling and reviewing available clinical illustrations of somatosensory transmission phenomena, I will provide a detailed clinical presentation of two instances somatosensory transmission from my own work.

Finally, a more substantive examination of somatosensory transmissions should, I believe, be capable of addressing understandable skepticism in clinical communities regarding somatosensory transmissions in psychotherapy by providing answers to fundamental questions regarding the nature of these phenomena and their relevance to clinical work. I will be attempting to establish such a coherent theoretical framework for somatosensory transmission phenomena—built upon existing psychoanalytic theoretical and clinical formulations, but, which is also integrated by neuroscience-based empirical evidence that supports and explicates the potential for somatosensory transmission in psychotherapy. My hope is that the conceptual framework I am proposing can begin to address unanswered questions regarding the underlying neurophysiological mechanisms, as well as the particular clinical contextual variables, that may be most associated with these clinical phenomena.

I believe that a more coherent theoretical formulation of somatosensory transmissions can, in turn, also serve to better organize and lend greater credibility to existing references to these phenomena in the literature, promote greater awareness and sustained interest among the broader clinical community, and, potentially, stimulate additional investigations of psychotherapy-related somatosensory transmission phenomena in the future.

### Summary and Chapter Organization

There appears to be growing interest among psychotherapists and psychoanalysts in a category of clinical phenomena characterized by clinicians' own bodily sensations or physical symptoms occurring in meaningful and potentially useful relation to the psychotherapy process with certain patients. However, the existing professional literature relevant to such *somatosensory transmissions* is currently of limited value to clinicians, especially in terms of its failures to utilize consistent terminology, provide more complete depictions of the clinical contexts in which somatosensory transmissions have reportedly occurred, or provide a theoretical framework that could begin to answer important questions, such as: 1) how it might be possible, or even conceivable, for psychotherapists to *feel* their patients' pain or other *physical* sensations; 2) what particular types of clinical circumstances might make such occurrences more (or less) likely to occur; and 3) to what extent, and in what specific ways, might attention to such transmissions be usefully incorporated into the therapeutic process and technique of psychotherapy?

Our current lack of better explanations for *how*, and under *what* circumstances, these clinical phenomena may occur in psychotherapy, has contributed, I believe, to an

increasing gap in the psychoanalytic and broader psychotherapy literatures—whereby, a growing number of articles can now be identified as making reference to what remains an ill-defined and insufficiently understood category of clinical phenomena (i.e., somatosensory transmission phenomena) that has, by and large, received too little serious theoretical consideration or rigorous scrutiny by clinician-theorists.

A central argument of this dissertation is that existing psychological and psychoanalytic theoretical frameworks—especially insofar as these frameworks remain insufficiently integrated with recent advances in other areas of psychological research, neurobiology, and the functional neurosciences—have previously been incapable of constructing a sufficient conceptual ‘holding space’ for psychotherapists to more consciously consider the relative incidence and clinical relevance of somatosensory transmissions within their work. I would argue that when our clinical conceptualizations remain too loosely defined, are unconvincingly represented or elaborated, or are insufficiently formulated within existing theoretical frameworks, psychotherapists will naturally be less likely to attend to these phenomena in their clinical practices. Contemporary practitioners cannot, after all, be expected to attend as fully to their bodily experiences as may be clinically prudent without more substantial theorizing on somatosensory transmission phenomena that convincingly explicates both the particular prevalence and characteristics of this clinical category and its potentially meaningful roles within psychotherapy process.

My overarching objective in this dissertation will be to attempt to formulate sounder theoretical foundations from which to better conceptualize the relevance of somatosensory transmission phenomena in psychotherapy. I will ground my theoretical formulations within recent developments in contemporary psychoanalytic theory, the

empirical research literatures of allied disciplines, as well as my own pertinent clinical experiences.

In the following chapter (Chapter 2), I conduct a thorough compiling, review, and evaluation of the existing psychotherapy literature that is explicitly relevant to somatosensory transmission phenomena. In order to better organize and assess these existing articles representing various theoretical orientations and assumptions, I have proposed the phenomenologically-descriptive, theoretically-neutral label of *somatosensory transmissions* to encompass a range of terms that have been used previously to identify these clinical phenomena. I conclude my review of the relevant literatures with a summary of the contributions of these existing references to my effort to construct a more coherent theoretical conceptualization of somatosensory transmission phenomena, while also highlighting several important questions that remain unanswered.

In Chapter 3, I review several recent advances in empirical research disciplines that I view as allied to clinical psychology, including interpersonal neurobiology and the functional neurosciences, with the explicit intention of identifying empirical evidence that is capable of informing and bolstering a more compelling clinical conceptualization of psychotherapy-related somatosensory transmission phenomena. I begin by reviewing recent investigations relevant to the underlying neurophysiological mechanisms associated with human empathic functioning—namely, *perception-action* couplings (Prinz, 1997; Prinz & Hommel, 2002; Sperry, 1952)—that have been demonstrated to facilitate shared motor, affective, and, even, *sensory*-level resonances between individuals in interaction (Preston & de Wall, 2002; Meltzoff & Decety, 2003; Decety & Jackson, 2004; 2006). I also review a narrower body of recent social

neuroscience investigations that have examined *empathic pain perception* with an eye toward uncovering the particular contextual variables that facilitate increased (or decreased) *somatosensory*-specific responses in observers of others' experiences of physical sensations.

Finally, I also discuss these empirical research-based findings from the perspective of constructing a more compelling conceptual framework for psychotherapy-related somatosensory transmissions. I focus, in particular, on how such recent advances in understanding the neurophysiological mechanisms responsible for human empathic functioning may also provide the basis for establishing a more comprehensive framework that is capable of organizing the broad category of psychotherapy-related *intersubjective* mechanisms—in a way that explicitly incorporates the potential for somatosensory-level transactions between patients and therapists.

In Chapter 4, I attempt to integrate the clinical and empirical contents of the two preceding chapters—that is, existing references to somatosensory transmission phenomena from the psychotherapy literatures (i.e., Chapter 2) and recent developments from empirical research disciplines with regard to underlying neurophysiological processes and potentials associated with human empathic functioning (i.e., Chapter 3)—by proposing a more coherent, empirically- and theoretically-grounded conceptualization of psychotherapy-related somatosensory transmission phenomena. I focus, in particular, in this chapter on further elaborating the *extreme* clinical circumstances that may be especially likely to precipitate instances of somatosensory transmissions in psychotherapy, while also conceptualizing of such somatosensory-level transactions between patients and therapists, most essentially, as

merely the relatively dramatic manifestations of what are actually pervasive *neurophysiological* potentials—active, albeit more typically below the threshold of conscious awareness, within broader clinical contexts and, arguably, throughout all human interactions.

I also propose, in Chapter 4, a clinically-focused conceptual framework for monitoring and working therapeutically with somatosensory transmission phenomena—emphasizing, in particular, what I view as the distinct advantages of conceptualizing this category of psychotherapy-related transactions from a “thoroughgoing two-person” metapsychological framework (Wachtel, 2008).

Most important to me, however, is the extent to which this dissertation’s theoretical and clinical formulations with regard to somatosensory transmission phenomena might be able to eventually contribute to promoting fuller and more conscious consideration by psychotherapists of the powerful roles that *our own* bodily experiences can play—and, indeed, are already playing—in our work with patients. In Chapter 5, I provide a detailed case presentation that illustrates how my own idiosyncratic bodily *sensations*, in fact, played a significant role in my clinical work with a man suffering from both psychological trauma and severe neuropathic pain symptoms. I present this case, on the one hand, as a means of contributing more detailed descriptions of the particular clinical contexts in which somatosensory transmission phenomena may be especially relevant—which, of course, I have highlighted as a significant shortcoming of existing literature in this area. However, my additional intention here is to further elaborate some of the particular clinical implications (and complications) that, I believe, may be likely to arise when clinicians attempt to implement such a more “thoroughgoing two-bodied” conceptualization of the

psychotherapy encounter—one that, I would argue, may finally include clinicians' greater conscious awareness and active consideration of our own natural *physical* responsiveness to, and with, our patients.

## CHAPTER TWO

Somatosensory Transmission Phenomena – A Critical Review of  
the Relevant Psychoanalytic and Psychotherapy Literatures

“Everything that establishes significant points in common between people arouses such *fellow feelings*, such identifications” (Freud, 1950; p. 83; emphasis added).

This chapter consists of a thorough compiling, review, and evaluation of the existing psychotherapy literature that is specifically relevant to a category of clinical phenomena involving therapists’ spontaneous, idiosyncratic physical symptoms or bodily sensations occurring in meaningful relation to the psychotherapy process with individual patients. This category of clinical phenomena, which I refer to as *somatosensory transmissions*, has been identified elsewhere within the psychotherapy literatures as: “kinesthetic empathy” (Berger, 1972; Dosamantes-Alperson, 1984; Kestenberg, 1987; Ragan & Seides, 1990; Dosamantes, 1992; Siegel, 2001; Pacifici, 2007; Pallaro, 2007; Sossin & Charone-Sossin, 2007; Vulcan, 2009), “body empathy” (Jacobs, 1973; 1991), “somatic experiences” as characteristic aspects of “the analyst’s receptive function” (Thomson, 1980), “body listening” (Lichtenberg, 1983; O’Shaughnessy, 1984; DaSilva, 1990), “somatic countertransference” (Bernstein, 1984; Simon & Bullock, 1994; Siegel, 1995; 1996; 2001; Dosamantes-Beaudry, 1997; Mathew, 1998; Wayne, 1998; 1999; Wyman-McGinty, 1998; Gross, 2008; Vulcan, 2009; Lombardi & Pola, 2010; Schore, 2011), “embodied countertransference” (Samuels, 1985; 1989; 2000; Field, 1989; Stone, 2006), “bodily countertransference” (Wieland-Burston, 1987; Wrye, 1998; Lombardi, 2008), “somatic correspondence” (Silverman, 1991), “maternal erotic countertransference” (Wrye & Welles, 1991), “embodied attunement” (Emery,

1992), “hypercathexis of the [analyst’s] somatosensory apparatus” (Agger, 1993), “sympathetic bodily resonance” (Raphael-Leff, 1996), “visceral mirroring” (Bacal, 1997), the “somatic intersubjective dialogue” (Dosamantes-Beaudry, 1997; 2003); “countertransference visceral somatic responses” (Anderson, 1998), “physical resonance” (Milch, 1998), “body countertransference” (Orbach, 2000; 2004; 2006; Dimen, 2001; Trautmann-Voigt, 2001; Pozzi, 2003, Orbach & Carroll, 2006; Blechner, 2011), “primitive bodily resonance” (Alhanati, 2004), “visceral resonance” (Knoblauch, 2005; 2006; Sonntag, 2006; Ginot, 2009; Sands, 2010), “the embodied transference-countertransference matrix” (Kuriloff, 2005), “visceral countertransference” (Sarasohn, 2005; Kavalier-Adler, 2006), “nonsymbolized embodied registers of interaction” (Knoblauch, 2006), “corporeal intersubjectivity” (Orbach, 2006), “embodied resonance,” (Stone, 2006), “sensory empathy” (Zanocco et al., 2006), “the analyst’s conscious and unconscious subjectivity residing in embodied states” (Sonntag, 2006), and “physical countertransference” (Laine, 2007).

One immediate conclusion that may be drawn from this extensive list of competing terms, each ostensibly referring to a category of somatic-level transactions between patients and their psychotherapists, is that there would appear to be a lack of agreed-upon nomenclature for this type of clinical occurrence. However, in spite of such dramatic inconsistencies in terminology—and, I would argue, corresponding confusion with regard to an organizing theoretical framework from which to conceptualize the meanings or clinical relevance of such instances—it is difficult to dispute the fact that these clinical phenomena are increasingly being noticed and written about by psychotherapists from a variety of theoretical and practice-related orientations. Nevertheless, it was abundantly clear from even my initial cursory review of the

relevant psychotherapy literatures that the potential for existing publications on psychotherapy-related somatic-level transactions between patients and therapists to constitute a *cohesive* body of clinical literature remained unrealized. This discovery provided an initial framework for my project.

In addition to providing in this chapter, what I believe to be, the most comprehensive review and organization of psychotherapy-related references relevant to this specific area of clinical theory and practice, I will also attempt to better organize the existing literature by developing and proposing a more coherent, compelling theoretical framework from which to consider such somatic-level transactions between patients and therapists. The ultimate goals of this effort are to promote increased awareness and recognition of these clinical instances by psychotherapists, engage in a fuller examination of relevant clinical variables, and generate improved understandings of the prevalence and clinical relevance of these phenomena with regard to the psychotherapy process.

### Somatosensory Transmissions – Organizing the Relevant Psychotherapy Literatures

Certain difficulties that I encountered while attempting to locate and identify publications relevant to this particular category of psychotherapy-related phenomena served as an early indication to me that there might be an opportunity to conduct a theoretically-oriented dissertation project in this area. I begin this chapter by elaborating several aspects of the process by which I was gradually able to identify relevant literature (prior to introducing and reviewing these publications in greater detail). I do this primarily because I believe that the difficulties I encountered while conducting this literature review bear directly on some of the challenges inherent to my

overarching objective: constructing a more coherent, compelling conceptual framework for better understanding this category of clinically-relevant, somatic-level transactions between patients and therapists.

For a variety of reasons, this particular literature review proved considerably more difficult than others I had conducted. Even after exhaustively sifting through every psychotherapy-related article or book chapter that happened to mention any of what had become an extensive list of potentially-relevant terminology<sup>1</sup>, I found that relevant publications I had managed to unearth only rarely led to other such pertinent articles. Far more common, in fact, were definitive-sounding statements citing the lack of any prior formal interest or scholarly inquiries in this area. Silverman (1991), for example, declared that, “hitherto, this variety of somatic correspondence has received *no* formal (written) analytic attention” (p. 441; emphasis added). Field (1989) referred to the subject of his investigation, “embodied countertransference,” as “a specific, *little-discussed* manifestation of the countertransference” (p. 512; emphasis added). Dosamantes (1992) stated, “the enactive or somatic mode of the therapist’s experiences has not yet received as much attention from psychoanalysts as have the imagistic and verbal modes” (p. 362). Wrye & Welles (1994), focusing on what they term “maternal erotic transferences and countertransferences”—that is, “preoedipal, preverbal, *body-based* transferences and countertransferences,”—state that such “countertransference

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<sup>1</sup> After realizing just how many potentially-relevant terms there appeared to be represented in the literature, I decided to produce my own exhaustive list of search terms by pairing every conceivable combination of relevant psychotherapy-related process such as: *countertransference, resonance, empathy, attunement, communication, identification, listening, and correspondence* with relevant qualifying terms including: *somatic, bodily, body, body-centered, embodied, visceral, physical, physiological, kinesthetic, psychosomatic, intersubjective, or transpersonal*. As further evidence of the need for more precise terminology and clinical conceptualizations relevant to somatic-level interactions between patients and therapists, *nearly all* of the above search-term combinations produced at least some relevant results (i.e., using *PsycINFO* and *Psychoanalytic Electronic Publishing* databases), which were then evaluated more carefully for their particular value to this project.

reactions to maternal erotic transferences *heretofore have not been described in the literature*" (p. 62-63; emphasis added). Shaw (2004) admits that while "it is true that psychotherapy has examined the idea of somatic reactions during therapy...the emphasis within the literature has been to study the body of the client; the therapist's body is largely absent...as though there is only one body in the consulting room" (p. 272). Furthermore, Orbach (2004) pointed out that "body countertransferences" have typically been "understood in psychic terms and not explored for the physical meanings that can be made of them." In her recent review of the dance-movement psychotherapy literature relevant to "somatic countertransference," Vulcan (2009) concluded that "apart from some cursory references to nonverbal behaviors that may be peripheral cues of countertransference...the somatic manifestations of countertransference are *yet to receive their due consideration*" (p. 3; emphasis added).

One last, perhaps more implicit, illustration of this trend can be inferred from Schore's (2011) recent reference to "somatic countertransference" (p. 88) in an article about the neuropsychological underpinnings of "intuition" and its role in the psychoanalytic process. Despite the number of specific references to "somatic countertransference" (Bernstein, 1984; Simon & Bullock, 1994; Siegel, 1995; 1996; 2001; Dosamantes-Beaudry, 1997; Mathew, 1998; Wayne, 1998; 1999; Wyman-McGinty, 1998; Gross, 2008; Vulcan, 2009; Lombardi & Pola, 2010), and even more such references to closely related clinical phenomena, that have appeared in psychoanalytic and psychotherapy journals in recent decades, Schore failed to offer *any* citations to support his mention of this clinical concept<sup>2</sup> (i.e., "somatic countertransference").

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<sup>2</sup> I find it unlikely that Schore (2011) believed he was designating a novel term in his use of "somatic countertransference." More likely, Schore's reasoning for not including citations with regard to

Further complicating my preliminary research efforts, once I began to more carefully inspect and compare the individual references which appeared to be relevant to somatosensory transmission phenomena I found that there were often surprisingly wide ranges of meanings attributed to what were essentially similar-sounding terms (i.e., therapists' "somatic countertransference", "embodied resonance" or "physical attunement" in relation to their clinical work with patients). Jacob's (1973; 1991) "body empathy" (p. 87; p. 107), for example, which refers narrowly to analysts' careful attention to clinically-relevant "kinesics"—that is, "the bodily movements that accompany the act of listening," which may include changes in the analyst's facial expressions, posture, physical gestures "when [the analyst] is in a state of empathic understanding" (p. 80-81)—seemed especially *exclusive* in its clear emphasis on relatively superficial, "observable" aspects of a therapist's bodily experiences. Meanwhile, Orbach and Carroll (2006) defined "body countertransference" much more broadly as "a therapist's awareness of their own body, of sensations, images, impulses, feelings and fantasies that offer a link to the client's process and the intersubjective field" (p. 64). In contrast to Jacob's *exclusive* and relatively more superficial focus, Orbach & Carroll's (2006) approach seemed overly *inclusive*.

Relying upon such an expansive definition of what constitutes "bodily-based" or "somatic" clinical phenomena risked, I thought, further obscuring potentially meaningful distinctions between clinical categories such as the unusual physical pain

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"somatic countertransference" was that he assumed that the meaning of this term was, by now, well-enough understood by clinicians as to no longer require additional qualification or citations. However, this omission, I believe, speaks to a complementary (and contradictory) challenge I encountered while conducting this literature review—namely, that for every reference that argues that somatosensory transmissions have not yet received sufficient attention, there are many more references, like Schore's (2011), which imply that this category of clinical phenomena is so inherently embedded within our contemporary clinical theories as to no longer necessitate further elaboration.

responses I experienced in relation to one of my own patients, and the arguably related-but-distinct phenomena that have received considerably more attention within the psychotherapy literatures—such as, therapists’ sexual feelings and erotic fantasies in relation to their patients (Searles, 1959; Taylor, 1977; Gorkin, 1985; Welles & Wrye, 1991; Davies, 1994; Kernberg, 1994; Knoblauch, 1996; Wrye, 1999; Kuriloff, 2005); analysts’ boredom or sleepiness in particular clinical moments (Racker, 1968; McLaughlin, 1975; Taylor, 1977; Kulick, 1985; Inner-Smith, 1987; Goldberg, 2002; Altman, 2005), the clinical significance of analysts’ dreams about their patients (Freud, 1900; Whitman et al, 1969; Zweibel, 1985; Lester et al, 1989; Emery, 1992; Wrye, 1996; Heenen-Wolff, 2005; Sands, 2010), and the technical utility of analysts’ imagistic associations to particular patients’ clinical material (Flannery, 1979; Thomson, 1980; Frayn, 1987; Ogden, 1994, 1995; Levinson, 2003).

A general review of the psychoanalytic literature reveals only relatively meager theoretical or clinical scholarship focused upon the bodily experiences of therapists (Szasz, 1956; Gunther, 1976; Aron & Anderson, 1998). References to analysts’ “bodily-based” experiences that do exist tend to rely upon vague and overly *inclusive* definitions of what constitutes “somatic” clinical phenomena. In other words, relatively vague, overly generic—but, nonetheless, often-repeated—references to the technical imperative that analysts attend to their own “somatic” or “bodily-based” experiences in relation to clinical work have become relatively embedded—without sufficient scrutiny or elaboration—within psychoanalytic theory and practice. Consider Reik’s (1948) conceptualization of “the third ear” by which analysts process “the *inside experience* of what the analyst perceives, feels, and senses regarding the patient” (Reik, 1948; p. 269-270); or, Searles’ (1959; 1973) descriptions of certain “physical” aspects of the “pre-

ambivalent symbiosis,” which analysts may encounter working with severely regressed patients; or, Racker’s (1968) many references to “countertransference” as involving “a gamut of potential responses from the analyst, ranging from short-lived, *internal experiences* to relatively intense and prolonged experiences that are acted out by the analyst” (Gorkin, 1987; p. 73; emphasis added); and, finally, Pontalis’ (1981) contention that “the unconscious *bodily resonance*” experienced by the analyst in response to a patient is “the only authentic form of psychoanalytic communication” (p. 170; emphasis added). This same tendency toward “vagueness” with regard to analysts’ “somatic” and “bodily-based” clinical experiences can also be found in more contemporary psychoanalytic writing—for example, in Reik’s (1993) technical advice with regard to “subtle *kinesthetic* tension” within the analyst’s body that may influence “how an analyst hears material...whether the analyst decides to remain silent or to intervene...how the analyst chooses his or her words and in what tone they are spoken if the analyst does make a comment” (p. 557; emphasis added); or, in Aron’s (1998) relatively stand-alone comment that “much of what we pick up from our patients we may first feel *in our bodies...our bodies* are the primary arena for the psychophysiological processing of affect” (p. 28; emphasis added); or, in Bass’ (2000) return to and reaffirmation of the contemporary relevance of Reik’s ‘third ear’:

“[I]n listening with what Reik (1948) referred to as the ‘third ear’, we are not limited to any one sense but follow the themes weaving in and out with all of our senses, attending not just to narrative lines but to all sorts of registrations of transference, countertransference, enactment, *somatic changes*—all part of the interplay, conscious and unconscious, that composes each unique analytic duet” (p. 877; emphasis added);

as well as, in any of a number of Schore's references to the analytic task of attending to and utilizing "countertransference," which Schore described as: "the *sensory* (visual, auditory, *tactile*, *kinesthetic*, and olfactory) and affective qualities of imagery which the patient generates" (1994; p. 451; emphasis added); as analysts' "discomforting *bodily* signals" and "*somatic markers* triggered by [the analyst's] perception of the [patient's] projective identification" (Schore, 2003; p. 97; emphasis added), and, simply, as "*somatic* countertransference" (Schore, 2011; p. 88; emphasis added) in a recent elaboration of the neurophysiological underpinnings of analysts' use of "intuition" relevant to psychoanalytic practice.

To his credit, Schore (2003) has provided a conceptual framework for better understanding his own references to analysts' somatic-level responses to patients; he describes such instances as, essentially, "counter-regulatory responses to patients' disregulation" (2003; p. 98). However, for the most part, what seemed most remarkable about all of these references—and countless others that could have been cited—was the extent to which the purported "somatic," "physical," or "bodily-based" experiences of analysts (as well as the important contextual clinical variables and circumstances surrounding these experiences) have remained so vaguely defined—especially, in actual physical or physiological terms.

More often, clinical phenomena involving analysts' "somatic" responses to patients have simply been lumped-together into reified conceptual constructs such as the analyst's *primary process* engagement of patients' unconscious processes and communications. Rarely, it seemed, were these "somatic" aspects of analysts' experiences exposed to any greater scrutiny or elaboration. Even those relatively rare cases which have provided some substantiation of analyst's clinically-relevant "somatic"

experiences have typically taken an approach that relies upon overly inclusive language that implicitly or explicitly incorporates analysts' broadly conceived "somatic" experiences of sexual arousal (or lack thereof), relative alertness (or lack thereof), imagistic reveries (or lack thereof), and dream material.

In other words, there appeared to be some rather contradictory and relatively unexamined assumptions operating within contemporary psychoanalysis regarding analysts' "somatic" involvement in their clinical work. On the one hand, I could readily point to a smattering of contemporary clinician-theorists who had described and documented what was perceived to be a relatively *novel* clinical category—that is, rather dramatic manifestations of clinicians' somatic-level experiences in relation to certain patients. At the same time, however, it was quite possible to find *many more* references, in fact, that appeared to conceptualize of clinicians' engagement of their patients, and the psychotherapy process more generally, at "somatic" levels as either a relatively foregone conclusion or as, at the very least, a clinical concept requiring little in the way of further elaboration.

To a significant extent, I would argue, these same contradictions have come to characterize even the ostensibly more *focused* literature relevant to somatosensory transmission phenomena—which has in many ways continued to imply and further reify the relatively generic, insufficiently-defined potential for somatic-level responses by therapists to their patients as a relatively expectable function of the analytic process without adequate elaboration of the expectable range of these physical responses, nor sufficient theoretical conceptualization of the underlying mechanics and contextual variables of such dramatic interpersonal exchanges relevant to psychotherapy.

On this basis, I ultimately determined that the majority of references to psychotherapists' "somatic" or "physical" experiences were too generic for my purposes and would, therefore, be of relatively limited assistance to my efforts to achieve a better understanding of particularly dramatic manifestations of somatic-level engagements between patients and therapists. I realized early on that I would need to focus my review of the relevant literature on those references that provided clear indications or actual documentation of the clinical phenomena in question—therapists' relatively spontaneous, idiosyncratic physical symptoms or sensations in response to their clinical work—and associated clinical circumstances to further contextualize these clinical phenomena.

#### Somatosensory Transmissions – A Comprehensive and Precise Clinical Category

Throughout the early process of making certain definitional refinements to my project, I tended to anchor my efforts by frequently recalling the specific qualities of my own personal clinical experiences, which had, after all, launched my original interests in this particular area of psychotherapy practice—that is, wanting to better understand how it might be possible for physical pain sensations associated with the presentation and past experiences of a particular patient of mine to seemingly manifest in my own subjective bodily experience. On the one hand, I was in no way dismissing the possibility that other, better-developed areas of the clinical literature with regard to therapists' more broadly conceived "somatic" responses to their clinical work might, in the end, prove valuable to my objectives. But, it was, on the other hand, my sense that clinical phenomena involving therapists' relatively idiosyncratic physical sensations and bodily-based experiences seemed to constitute a compelling category of clinical

occurrences that is distinct in important ways from therapists' sleepiness, or sexual attractions and imagistic associations in relation to their patients.

Presumably, at least some of what I found so compelling in these particular refinements of my project's primary focus had to do with the fact that other categories of therapists' more broadly-defined "somatic" experiences had already been more extensively examined in the psychoanalytic literature, whereas therapists' idiosyncratic physical sensations in relation to patients and the psychotherapy process had *not* received similar treatment. But, more essentially, I felt that what seemed to most distinguish the types of clinical episodes I wished to examine were their potential to serve as especially dramatic evidence of the surprisingly raw, physical, and physiological forms our *connections* to our patients seemed capable of assuming under certain clinical circumstances. It was, more precisely, *these* particular clinical phenomena and *these* specific clinical circumstances that I most wanted to investigate and better understand.

After all, I reasoned that, despite some initial difficulties in attempting to locate relevant psychoanalytic theorizing and clinical illustrations related to this specific area, I had, ultimately, been able to identify what appeared to be a growing number of articles that supported my contention that this category of dramatic physical and physiological therapeutic transactions did, indeed, constitute a relatively distinct type of clinical phenomena worthy of increased clinical attention and scholarly examination. On the basis of my literature review, I also discovered that I was not alone in having experienced this type of dramatic clinical occurrence while practicing psychotherapy; nor was I alone in my interest in more fully conceptualizing the nature of these clinical transactions.

Given the many competing terms that I discovered within the psychoanalytic and psychotherapy literatures, as well as the varied meanings ascribed to these terms, I decided that any effort to better organize and assess the relative merits of existing scholarship relevant to this area of clinical psychology would *first* necessitate coming up with a phenomenologically-descriptive, but theoretically-neutral categorical label. This term would have to offer the potential of not only subsuming the relatively broad range of identified somatic-level transactional phenomena that has been referred to previously in the psychoanalytic literature, but would also have to more adequately capture what I perceived to be the extremes—or *boundaries*—of this continuum of psychotherapy-related “somatic” phenomena by being able to accommodate the type of unusual physical pain sensations that I, myself, had encountered with Mr. M.

I ultimately decided upon the term *somatosensory transmission phenomena* to serve these multiple purposes. Before beginning my review and evaluation of the psychoanalytic literature most relevant to somatosensory transmissions in psychotherapy, I want to attempt to make clear why I consider the designation of this new label to be useful beyond simply adding yet another conceptual signifier to an already abundant list of overlapping clinical terminology.

As might be expected when dealing with clinical phenomena that are only beginning to be recognized within the broader clinical community, the available literature tends to reflect—in a relatively unexamined way—underlying theoretical biases of individual authors and clinicians representing a range of competing contemporary orientations to the practice of psychotherapy. Therefore, in order to protect against the inadvertent adoption of implicit theoretical assumptions made by other authors, as I attempted to constitute a more coherent theoretical

conceptualization of this category of clinical phenomena, I thought it would be important to propose a new, more descriptive and inclusive terminology.

I was dissuaded, for example, from relying upon some of the relatively more commonly-referenced terms in the existing literature that involved *countertransference*—whether *somatic*, *embodied* or *visceral*—because of the origins of this concept in more positivist traditions in psychoanalysis. Generally speaking, *countertransference* has typically been understood as a therapist’s experiences in relation to a particular patient as differentiated (and, implicitly, *differentiable*) from a therapist’s experiences that are unrelated to the patient. In other words, adopting a term that involved *countertransference*—and, not incidentally, this was also the case for those articles that referred to *projective identification* as the mechanism by which somatic-level transactions might best be understood—even to the extent that the clinical meanings of these terms has evolved toward more intersubjectively-nuanced conceptualizations, risked, I felt, “going off message” insofar as somatosensory transmissions might, ultimately, be better understood as relatively endemic to all human interactions, occurring implicitly and bi-directionally (in dyadic encounters), and, more importantly, that these phenomena may be, essentially, indistinguishable as “belonging to” or “associated with” one or another individual participant in a given interpersonal encounter. Bacal (1997), I think rightly, pointed out that while:

“[M]any analysts now recognize that the experience of both participants in a psychoanalysis is determined by complex processes of reciprocal or mutual influence...calling this ‘transference’ and ‘countertransference’ often does justice to

but a narrow aspect of what is happening in the interactive, or intersubjective, field”  
(p. 671)<sup>3</sup>.

On a related note, I wished to avoid using existing terminology that could be construed as aligning myself with certain traditions or orientations within psychoanalysis and psychotherapy. This was primarily driven by my belief that this category of clinical phenomena—and its underlying neurophysiological mechanisms—would prove relevant to *all* forms of therapy. Certainly, perusing the available literature, it would appear that certain psychotherapy orientations, such as *Dance Movement Therapy* (DMT) or *Body Psychotherapy*, have more actively taken notice of and documented somatic-level transactions between patients and therapists. This is due, in large part, to these orientations’ more explicit clinical focus on “bodily expression” and their use of specific clinical techniques aimed at gaining access to patients’ more somatic-level experiences (Pallaro, 2007). However, I did not wish to imply—for example, by adopting one of the commonly cited terms for this phenomena within the DMT literature, “kinesthetic empathy” (Kestenberg, 1987; Ragan & Seides, 1990; Siegel, 2001; Pacifici, 2007; Sossin & Charone-Sossin, 2007)—that any particular clinical approach or specific therapeutic interventions were essential to encountering clinically-meaningful somatic-level transactions between patients and therapists.

I ultimately decided that *somatosensory transmission phenomena* best captured the phenomenology implied by my primary research questions: *how*, and under *what*

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<sup>3</sup> In the same article, Bacal (1997) also argued that terms such as “transference”, “countertransference”, and “projective identification” were “essentially *one-body* concepts” (p. 670; emphasis added), and were, therefore, relatively incompatible with “two-bodied” conceptual frameworks characterized by contemporary notions of “intersubjectivity”. In a later chapter of this dissertation, I will argue that psychotherapy-related *somatosensory transmission phenomena*, once better examined and understood, may provide our discipline with a quintessentially “two-bodied” clinical concept, from which to better anchor evolving theoretical formulations from the twin tides of reification and reductionism.

particular set of clinical circumstances, could it be possible for somatic sensations to be spontaneously and non-consciously transmitted between individuals during the course of psychotherapy?

My use of *somatosensory* is meant to signal a subtle-but-important distinction between the orientation reflected in this project and what I view as overly-reductive schematics within psychoanalysis that have tended to artificially bifurcate “psyche” and “soma” (i.e., as implied by the need for terms such as “*somatic* countertransference”), while offering the additional potential of bringing into sharper focus the more *extreme* physical *and* physiological range of phenomena vis-à-vis the broader *psychoneurophysiological continuum* posited by contemporary theories of affect-related information processing (Silvan, 1962; Basch, 1976; Krystal, 1988; Damasio, 1994; 1999; LeDoux, 1996; Frattoroli, 2001; Bucci, 2005). A significant portion of this dissertation, in fact, highlights consistencies between evolving understandings of the psycho-neurophysiological continuum of human affective experiences, while examining, in particular, the *extremes* of this continuum—in order to ascertain what psychotherapy-related *somatosensory transmissions* may reveal about the *physical* boundaries of human empathic and intersubjective processes and potentials.

I purposefully refer to *transmissions* in order to make subtle reference to psychoanalysis’ rich history of attending to non-conscious forms of communication between patients and therapists—as in, Freud’s famous prescription regarding the analyst orienting his or her unconscious “as a receptive organ towards the *transmitting* unconscious of the patient” (Freud, 1915; p. 115; emphasis added), while also explicitly emphasizing the a psychotherapy transaction that takes place *between* and is *dependent upon* both participants. Furthermore, I felt that the term *transmissions* was particularly

evocative of invisible communication signals—such as radio waves—which, despite arriving at their destinations in a relatively unaltered *physical* form, may (or may not) be tuned-into and understood, even at significant distances, for their *communicative* potential.

Finally, I use the term *phenomena* to make reference to the particular influences on my thinking of the phenomenological tradition within contemporary philosophy—which has emphasized that which can be known or derived through one’s *senses*, rather than through one’s mind.

I will intentionally be emphasizing in the following literature review certain publications that refer specifically to relatively dramatic instances of *somatosensory transmission phenomena*—wherein spontaneous, idiosyncratic physical sensations or related physiological symptoms involving therapists’ subjective appraisals of their own bodily experiences have been documented. I do this, once again, in order to draw the important distinction I see between the broader category of psychotherapy-related somatosensory transmissions—conceptualized as *inclusive* of more well-examined aspects of therapists’ “somatic” experiences in relation to patients (i.e., sexual feelings, sleepiness, or imagistic reverie)—and these dramatic, idiosyncratic, less well-examined, physical and physiological manifestations of the broader continuum of psychotherapy-related nonverbal transactional phenomena.

### A Comprehensive Review of the Psychotherapy Literatures Relevant to Somatosensory Transmission Phenomena

Mirroring to some extent the difficulties that accompanied my efforts to identify relevant psychotherapy literature, it also proved quite challenging to decide how best to

organize a review of the literature I *did* find. In order to emphasize one of my principle dissatisfactions with existing references—namely, that they often contained relatively vague references to therapists’ generic “somatic” experiences without sufficiently detailed elaboration of therapists’ actual experiences or the surrounding clinical circumstances—I intend to highlight, in particular, those references that include clear clinical depictions of somatosensory transmissions. In fact, for those articles where detailed clinical material has been included, the reader will notice that I have offered my own sometimes-extensive reviews of this case material precisely because detailed clinical references to this category of clinical phenomena are so rare. The clinical illustrations mentioned in the following review represent the only examples that could be identified by an extensive search and review of a broad range of professional psychotherapy literatures. Therefore, what is contained in this chapter can be said to represent the breadth of our discipline’s knowledge relevant to clinical phenomena involving therapists’ relatively spontaneous, idiosyncratic physical symptoms and bodily sensations occurring in meaningful relation to the psychotherapy process.

By prioritizing existing clinical illustrations in the following review of the literature relevant to somatosensory transmissions, my aims are: 1) to more precisely and evocatively define what I see as a distinct subcategory of somatosensory transmission phenomena—namely, dramatic examples of relatively spontaneous, idiosyncratic physical and physiological manifestations of psychotherapists’ involvement with their patients, 2) to emphasize the relative dearth of actual clinical illustrations relevant to this subcategory of somatosensory transmission phenomena by distinguishing these more clinically-substantive publications from more typical references that refer either too vaguely or, otherwise, non-substantively to “somatic”

aspects of therapists' experiences in the psychotherapy interaction without sufficient clinical (or conceptual) elaboration, and 3) to ascertain what this relatively limited number of relevant clinical illustrations may be able to contribute to my efforts to construct a more comprehensive and coherent clinical conceptualization of somatosensory transmission phenomena in psychotherapy.

Although this dissertation primarily focuses upon the psychoanalytic literature—in large part, due to the fact that psychoanalysts are among the relatively few psychotherapy orientations to have seriously considered these clinical phenomena—I have also included articles representing other psychotherapy modalities such as *Dance Movement Therapy (DMT)*, *Body Psychotherapy*, and *Jungian or Analytic Psychology* in order to provide as broad-as-possible a basis for comparing the relative strengths and weaknesses of contemporary thought regarding this category of clinical phenomena.

To the extent possible, therefore, I have also grouped references based on their relative alignment with particular psychotherapeutic orientations. I also intentionally present references chronologically in order to document growing interest among psychotherapists in somatosensory transmissions over the past several decades.

One final point that I would make regarding the organization and presentation of this literature review relates to an underlying theoretical assumption that pervades this dissertation project: that the *relational turn* in contemporary psychoanalysis—broadly characterized as having re-conceptualized psychoanalytic approaches to psychotherapy through an ongoing elaboration of “two-person” perspectival frames of reference (Greenberg & Mitchell, 1983; Hoffman, 1983; 1991; Stern, 1983; 1989; Atwood & Stolorow, 1984; Eagle, 1984; Modell, 1985; Mitchell, 1988a; Ghent, 1989; Aron, 1990;

Gill, 1994; Wachtel, 2008; 2010)—has laid essential conceptual groundwork that has enabled psychotherapists to increasingly notice and grapple with the potential clinical significances of such transactional phenomena as somatosensory transmissions. In later chapters, I will provide additional support for my contentions that somatosensory transmission phenomena, in fact, constitute a quintessentially “two-person” category of clinical phenomena, and, therefore, may be best conceptualized on the basis of “thoroughgoing two-person” relational psychoanalytic theoretical perspectives (Wachtel, 2008). As such, my discussions in this chapter will periodically make reference to specific “one-person” and “two-person” theoretical assumptions that can be discerned within the existing psychotherapy literatures relevant to somatosensory transmissions. This is intended to highlight potential relationships between the relational turn in contemporary psychoanalysis and growing recognition of *somatosensory transmission phenomena* within psychotherapy disciplines generally—which I will elaborate upon in later chapters.

### *Classical Psychoanalysis*

Given the traditional priorities of psychoanalytic theory and practice, which have emphasized analysts’ objectivity and technical neutrality in observing and interpreting patients’ unconscious intrapsychic conflicts, it was unusual until relatively recently in the evolution of psychoanalysis for analytic theorists or practitioners to focus significant attention on the bodily experiences of *analysts* (Szasz, 1956; Gunther, 1976; Aron & Anderson, 1998). I have, however, been able to identify a few references relevant to somatosensory transmission phenomena that do primarily reflect classical

psychoanalytic perspectives and principles (Jacobs, 1973; Thomson, 1980; Silverman, 1991; Agger, 1993).

Essentially, what unites this particular group of references are their common theoretical and technical assumptions related to the primary function of analysts serving as relatively *objective* and *neutral* observers who facilitate patients' gradual revelation of, and insights about, formerly unconscious affective conflicts—which, at least insofar as this group of theorists is concerned, may under certain circumstances manifest in therapists' own spontaneous physical experiences and bodily sensations in relation to their patients. Somewhat counter-intuitive to my initial preconceptions regarding more traditional approaches within psychoanalysis, several of the references presented in this sub-section, in fact, provide among the most elaborated clinical descriptions of actual somatosensory transmission phenomena available *anywhere* in the psychotherapy literatures. However, in contrast to some of the other clinical orientations that I will review, classical clinician-theorists have tended to conceptualize analysts' clinically-relevant physical experiences in terms of the analyst's expectable primary-process-level engagement of his or her *patients'* unconscious experience. As such, these examples of *analysts'* primary process-level bodily experiences have typically been construed as a source of information almost exclusively about the *patients'* experience.

One of the earliest writers to highlight the potential clinical relevance of therapists' more somatic-level responses to their patients happens to be, coincidentally or not, the same analyst who is often credited with designating and popularizing the contemporary psychoanalytic concept of psychotherapy-related *enactments* (Jacobs, 1986). In an earlier article that seems to presage his later conceptualizations regarding

enactments, Jacobs (1973) focused on the analytic and technical value of attending to his own “kinesics”—relatively unconscious “bodily movements that accompany the act of listening...[such as] tapping of a foot or motor restlessness” (p. 80)—which the author suggested might be elicited in certain interactions with patients. Jacobs argued that such kinesics—when understood as a form of “motor discharge” in the analyst—could potentially provide him with useful information about his patients’ still-unconscious affective experiences from which to base his analytic interpretations:

“If it is true that the analyst, seeking to understand the patient’s unconscious communications, is able to utilize the thoughts and fantasies that arise in his own mind to assist him in this process, it would seem justifiable to assume that *another pathway for the expression of his unconscious mental activity, namely that of motor discharge, can claim similar validity*. When the unconscious of the analyst is in tune with that of the patient—when, in short, he is listening well—certain aspects of his *bodily movements*, reflections of his own resonating mental process, will occur in response to the patient’s associations. Observation of his own nonverbal behavior may then be useful to the analyst in picking up cues to the unconscious meaning of the patient’s communications and may in this way assist him in the process of interpretation” (p. 81; emphasis added).

Jacobs (1973) included three relevant clinical illustrations involving his technical use of attending to his own idiosyncratic nonverbal behaviors during analytic work. In the most detailed of these case studies, Jacobs reported catching himself during one particular session engaged in the “unusual behavior” of pulling at the belt loops of his pants, as if to resist “some constriction around my waist” (p. 82) while listening to an adult male patient describe recent anxiety symptoms including heart palpitations, constricted breathing, and upset stomach. The patient’s anxiety symptoms were reportedly precipitated by relatively innocuous circumstances: the patient’s witnessing

a friend of his diapering her 5-month-old infant. Jacobs notes, in particular, his patient's depiction of the friend's diapering as "too tight" and "uncomfortable."

In further contemplating his own spontaneous, idiosyncratic movements (i.e., pulling at the belt loops on his pants) in relation to this patient and specific moment in the treatment, Jacobs reports that he quickly associated to a very particular aspect of his patient's early history: his having endured an umbilical hernia as a young child, and the restrictive and painful intervention that had been administered to treat this ailment, involving tight, adhesive binding of the patient's abdomen region. Jacobs concludes that it was by virtue of attending to his own idiosyncratic behaviors that he was able to better empathize with this patient's unconscious affective experiences, and, ultimately, formulate an appropriate interpretation linking his patient's more recent anxiety symptoms to these earlier traumatic episodes:

"My own unconscious recognition of what lay behind the patient's experience of anxiety seemed to have taken at first a nonverbal form. Only as I was focusing attention on my *spontaneous bodily movements* did the interpretation occur to me as a thought" (p. 82; emphasis added).

Jacobs (1973) provides two additional vignettes involving his own idiosyncratic behaviors with patients, which in each case triggered self-reflection on his part, and eventually led to meaningful associations and useful interpretations of his patients' unconscious process.

At a more conceptual level, Jacobs asserts that analysts' nonverbal behaviors, especially those that take the form of such idiosyncratic movements or gestures during the analytic process may "reflect a bodily aspect of the empathic response...related to the use of the body as a prime conveyor of affect between mother and child" (p. 87).

Furthermore, Jacobs argues that aspects of the analytic situation may revive these particular communicative potentials, importantly, for *both* patient *and* analyst:

“[I]t seems possible that the analytic situation, in which the analyst’s full faculties are geared toward empathic understanding and in which temporary ego regressions take place as an inherent part of the listening process, fosters the reawakening of what we might term ‘body empathy’. There is...in the analyst a keener awareness of somatic reactions, reflecting the increased cathexis of the body ego, which accompanies the act of empathic listening. This temporary reinvestment of the body, which revives the latent sensitivity to kinesic cues that played so large a role in infancy and early childhood, then allow the analyst to react with bodily responses that reverberate with the unconscious communications of the patient. The revival of past inner experiences similar to those of the patient may then take the form of a bodily movement as well as a memory or an affective response...this ‘body empathy,’ which can be considered a primal and nuclear aspect of the empathic experience, could then be utilized in the service of a cognitive and affective understanding of what the patient was attempting to communicate” (p. 87-88).

From this particular conceptual standpoint, what Jacobs has proposed is not especially novel. Jacobs, in fact, cites Burlingham (1967) and Greenson (1967) for their significant contributions to his understanding of the analogy between analyst-analysand and mother-infant dyads, as well as the potential for subtle, bodily-based modes of communication in certain clinical circumstances. Additionally—and, this is largely consistent with many of the more generic references to analysts’ broadly-defined “somatic” or “internal” experiences in relation to their patients and the psychotherapy process found throughout the psychoanalytic literatures (e.g., Reik, 1945; Searles, 1959; Racker, 1968; Pontalis, 1981; Renik, 1993; Schore, 1994; 2003; 2011; Aron, 1998; Bass, 2000), Jacobs’ (1973) article could essentially be seen as simply offering a fuller clinical elaboration of that which had previously been *assumed* to

constitute a portion of the primary-process “*somatic-level*” involvement of psychoanalysts with their patients.

However, from the perspective of my own project’s focus on the ill-defined clinical category of somatosensory transmission phenomena, Jacobs’ (1973) writing represents a first—and, still, one of the only—of its kind. What most distinguishes this article—from more typical, relatively superficial references to “somatic” aspects of therapists’ potential experiences with their patients—is Jacobs’ (1973) explicitness with regard to presenting *actual* clinical material, and actual somatosensory manifestations of the therapist’s *bodily* experiences in relation to his patients. This is all the more impressive when compared favorably with even more recent publications that are specifically relevant to somatosensory transmission phenomena in psychotherapy. Furthermore, Jacobs—conscious of the considerable obstacles to obtaining more definitive understanding or explanations of this type of clinical phenomena—raised, for what appears to be the first time in the psychotherapy literatures, several important questions that he imagined would have to await future research, including: “why is it that the analyst’s comprehension initially takes a somatic form under some circumstances but not under others?” and “how can we explain the fact that this route is more available to some analysts while others can make relatively little use of it?” (p. 90-91).

Based on his own clinical observations and experiences, Jacobs did offer brief speculation regarding the potential, for example, of physical trauma or other types of bodily preoccupations—in *patients or analysts*—to facilitate this particular type of clinical occurrence. From the perspective of therapists working with patients in physical distress, Jacobs speculated that “being confronted consistently with material

relating to intensely conflictual bodily experiences may serve to increase an analyst's *own* body awareness and facilitate this pathway as a route of comprehension" (p. 91). In terms of analysts' potential contributions to these clinical episodes, Jacobs stated, "there is no doubt...that the nature of the analyst's own bodily experience in childhood plays an important role in fostering such responses" (p. 91). He does not, however, elaborate any further on this latter point.

Another aspect of Jacobs' (1973) clinical illustrations that I found particularly noteworthy—aside from the fact that they represent some of the earliest serious consideration in the psychotherapy literature of the potential clinical significance of therapists' spontaneous, idiosyncratic, somatic-level experiences in relation to the psychotherapy process—was how carefully Jacobs appeared to constrain his analytic focus to only those relatively superficial or behavioral manifestations of his unconscious connections to his patients in these moments. Rather than, for example, emphasizing his own sensorial or affective experiences, which might have *precipitated* the "motor discharge" or idiosyncratic "kinesics" he observed, Jacobs focused almost exclusively on *behavioral* "gestures" of the analyst. The only exception—and, it is an important one insofar as the topic of this dissertation is concerned—is Jacobs' brief revelation of the *physical sensation* of "some constriction around my waist" (1973; p. 80), mentioned in the most elaborated of his three clinical vignettes. Even in this particular case, however, Jacobs' primary focus quickly returned to the *behavioral* manifestation, or "motor discharge" (i.e., pulling at his belt loops).

Jacobs (1973) clearly demarcated his interest in spontaneous, idiosyncratic *behavioral* manifestations of the analyst—as opposed to more sensorial or affective experiences—in relation to his patients. After all, his article is entitled: "*Posture, Gesture,*

*and Movement in the Analyst: Cues to Interpretation and Countertransference.*”

However, given my own interest in somatosensory transmission phenomena, I could not help but wonder whether Jacobs’ narrower focus in this article on such *behavioral* manifestations might not implicitly reflect emerging tensions at this earlier point in the history and evolution of psychoanalytic theory—in particular, between “one-person” and “two-person” conceptual models.

For example, Jacobs’ (1973) documentation, for the first time, of clinically-relevant *bodily* aspects of the analyst’s primary process-level interactions with patients—including Jacobs’ own unusual *physical sensations*—might be construed as Jacobs drawing himself closer to what is now thought of as “two-person” conceptual terrain. After all, Jacobs essentially posited the potential therapeutic utility of analysts’ *own* “regressions” and, therefore, analysts’ potentially constructive confrontations with their *own* primary-process material within the contexts of the psychotherapy encounter—similar, perhaps, to contemporary intersubjectivist concepts like the analyst’s use of his or her own “reverie” (Ogden, 1999).

However, Jacobs (1973) can also be seen as, ultimately, deemphasizing the importance of his *physical sensations*—and, therefore, the relative importance of his *own* primary-process functioning in relation to his patients—by eventually focusing so explicitly in his formulations at the level of the analyst’s *behavior* and, in particular, on potentially observable behaviors of the analyst (i.e., idiosyncratic gestures that might be noticed by the analyst and, sometimes, the patient). In fact, significant portions of Jacobs’ article were devoted to cautioning against the potentially negative impacts upon patients of an analyst’s remaining unaware of such unconscious-but-*observable* (i.e., to patients) behaviors. These warnings appear to be more consistent with a “one-person”

approach to psychotherapy that emphasizes the analyst's technical neutrality (i.e., not "contaminating" the *patient's* process with contributions from *one's own* unconscious processes).

I would also suggest that Jacobs' explicit technical suggestions with regard to the dangers of analysts not being aware of their own unconsciously-driven behaviors also speak to an overarching emphasis on the therapist's supposed *objectivity*—that is, his being able to essentially monitor *both* his patient's *and* his own unconscious processes through various derivatives including such unconscious-but-observable behaviors. In this way, Jacobs was also emphasizing some rather traditional "one-person" functions of the analyst. However, in Jacobs' relatively "one-person" elaboration of the responsibilities of the analyst, he or she also needed to attend to his or her own primary-process-induced, but, ultimately, *observable* (i.e., relatively objective) responses to one's patients, and to utilize this additional category of observable clinical "data" to inform his interpretations.

Furthermore, in spite of a metaphorical reliance upon the mother-infant dyad and references to analysts' participation in primary-process modes of communication with their patients during analysis—features that will also be emphasized in more "two-person" psychoanalytic perspectives with relevance to somatosensory transmission phenomena—Jacobs (1973), ultimately, described an approach to somatosensory transmission phenomena that is most consistent with a more traditional "one-person" psychoanalytic theoretical and technical orientation. For example, even when Jacobs goes so far as to speculate as to the contributions of analysts' earliest experiences in relation to their *own* bodies as "no doubt" (p. 91) facilitating a later predisposition in certain analysts to make use of this alternative "route of

comprehension” (i.e., attending to their own spontaneous, idiosyncratic bodily experiences and gestures in order to gain access to patients’ unconscious processes), it is, ultimately, according to Jacobs, the analyst’s responsibility to be aware of such potentially unconscious personal contributions in order to be able to technically *neutralize* them by objectively observing and determining their particular relevance to *patients’* unconscious processes and communications.

In contrast to Jacobs’ (1973) narrower emphasis on relatively *observable* manifestations of analysts’ somatic-level engagement with patients, Thomson (1980) challenged analysts to turn to their “*inner experience*” (p. 183)—which he, alternatively, referred to as “subjective experience” (p. 183), “receptive function” (p. 183), and capacity for “inwardly experiencing” (p. 201)—as a valuable psychoanalytic tool:

“The gradual move towards the view of the psychoanalytic situation as an open system of interaction and mutual participation of the two protagonists suggests that the time may be ripe to examine the analyst’s *inner experience* in greater detail” (p. 183; emphasis added).

Thomson (1980) emphasized how increased elaboration of the analyst’s “inner experience” in psychoanalysis could permit analysts to better navigate the “major part of this work [that] proceeds unconsciously” (p. 183), characterized by what Thomson described as “working beyond the boundary of discursive thinking” (p. 185). Thomson argued that, from this vantage point, analytic work was necessarily facilitated: “by means of a language which proceeds from the analyst’s preconscious, comprised of elements...derived from the primary process...vague, non-discursive, symbolic, affective or even *sensorimotor*” (p. 185; emphasis added). As such, Thomson advised that:

“There are times when an analysis has reached deep layers of the patient’s psyche, when the analyst experiences a dreamlike phantasmagoria of thoughts, images, affects, *bodily sensations*, and *sensory impressions*. He cannot for the moment clearly distinguish what stimuli emanate from the patient and what from himself. The experience is not for the moment readily comprehensible to him, nor is he in haste to render it so. The analyst should not be in haste to impose meaning on his subjective experience. In its very inchoate nature or ‘unmeaning’ lies its truth” (p. 184; emphasis added).

It was initially tempting to lump Thomson’s (1980) very lyrical prose—which advocates for analysts’ increased clinical reliance on their subjective awareness of such things as “intermittent...visceral responses” (p. 184), “sensory-affective stimuli” (p. 184), “bodily sensations, and sensory impressions” (p. 184)—with the aforementioned category of references that has made only passing, relatively superficial mention of clinicians’ “somatic” experiences in the context of defining analysts’ vaguely-defined, technical reliance upon their “primary process” or “internal” experiences in the context of conducting analyses (Reik, 1945; Searles, 1959; Racker, 1968; Pontalis, 1981; Renik, 1993; Schore, 1994; 2003; 2011; Aron, 1998; Bass, 2000). However, after considerable elaboration of his general theoretical perspectives vis-à-vis analysts’ utilization of their own “somatic experiences,” Thomson does eventually provide several clinical illustrations to further substantiate his ideas, including:

1) An adult female patient, with whom Thomson “suddenly began to experience *trajectories, a sense of objects flying at me*” before, ultimately, recognizing that he must have been “avoiding a painful confrontation with her rage, which was connected with experiences of traumatic disruption (very early separation from mother), triggered by an approaching vacation break” (p. 192; emphasis added);

2) An adult male patient, with whom Thomson experienced “a very quick flash of very unpleasant and *intense claustrophobic feeling*,” to which the analyst reportedly associated (spontaneously) to an image of *Jonah and the Whale*, and, ultimately, connected both his physical and imagistic associations through inquiry and interpretation to his patient’s “rage with [his] father, conflicting with a need to be looked after by him” accompanied by intense fears of being controlled or “*swallowed up*” in relation to other men including his therapist (p. 194; emphases added); and,

3) “A dour, self-contained man” given to long silences, with whom Thomson reported feeling suddenly: “very tense...*my head started to feel as though it was tightly clamped in a vice*.” Thomson’s initial physical response, which he further characterized as “muscular and visceral tension” was reportedly followed by a “quite spontaneous” series of visual associations—first, to his being presented a choice between “beauty and ugliness” as represented by “green undulating fields...and utilitarian buildings and factories,” and, subsequently, to “some fantasies about ruthless military figures like Hitler, and Napoleon...” —all of which, Thomson reported he was eventually able to relate to this patient’s conflicted feelings triggered by a recent visit to the rural village in which his “hard, unyielding, sharp-tongued” mother had been born (p. 196; emphasis added).

With regard to the expectable range of such “somatic experiences” of the analyst, Thomson (1980) lists “musculo-skeletal tension, visceral tension, sensations of disturbed equilibrium and fine vibratile sensations” as all being “examples of what the analyst may experience during his deliberate use of his subjective experience” (p. 203). Thomson referred to traumatized patients—and, in particular, to patients’ “traumatic affects” (p. 192)—as being particularly likely to enlist such somatic manifestations of

analysts' "empathic receptivity" (p. 193). He explained that: "it is not possible for an analyst to face a patient's traumatic over-stimulation without experiencing over-stimulation himself" (p. 192). In such cases, Thomson counseled analysts to closely monitor their own self-experience, including "affects, fantasies, induced personal memories...which can help [the analyst] to get through these phases and to carry out whatever further self-analysis becomes necessary at such difficult times" (p. 192).

Although Thomson does explicitly associate his own greater tendency toward somatic experiences in the analytic process with working with certain "traumatized" patients (p. 192)—and, correspondingly, with "more pathological conditions" (p. 186)—the general emphasis of his arguments describe such somatic responses as a relatively pervasive function of the analyst's "empathic receptivity" (p. 193), presumably relevant to all types of analytic work:

"That which is occurring in the patient's more primitive affects and drives *inevitably* will register in the analyst's affects and drives. This is especially true in the more pathological conditions (e.g. borderline states) though *it is not confined to these*. An analyst may have to permit himself to experience chaotic, confusing and disturbing inner experiences before regaining equilibrium and integrating the experience" (p. 186; emphasis added).

In line with my review and assessment of Jacobs' (1973) article on somatosensory transmission phenomena, I want to briefly highlight some of the conceptual tensions—in particular, between "one-person" and "two-person" psychoanalytic frameworks—that also appear, somewhat more explicitly, in Thomson's (1980) work. Thomson acknowledged, by the time he was writing in 1980, an emerging conceptualization of the analytic situation as "an open system of interaction and mutual participation of the two protagonists" (p. 183). Thomson rather beautifully elaborates

his understanding of, in particular, the *process*-related implications of such a revised formulation through his lyrical descriptions of the depths of uncertainty that patient and analyst must somewhat blindly navigate, sometimes, for extended periods of an analysis. Further evidence of Thomson's willingness to challenge more "one-person" psychoanalytic traditions can be seen in his explicit consideration of these broader debates in the evolution of psychoanalytic theory:

"far from easy to move away from the idealization of the objective model of psychoanalytic technique since it was this that had originally enabled Freud to rescue the study of the mind from the aura of magic and superstition in which it had lain for centuries. Yet in our own time, a reconciliation between the objective and subjective does seem to be growing" (p. 185; emphasis added).

However, Thomson's (1980) ultimate reliance upon more traditional psychoanalytic anchors such as the analyst's relative *objectivity* and *neutrality* remain apparent.

Thomson, for example, emphasized that while:

"the analyst cannot simply sit back and explain [the patient's transference], for he is immersed in the process and much of the time will be unable to extricate himself sufficiently to determine what is going on... The psychoanalyst's *inner experience*, in so far as he is able to clear his mind of distracting preoccupations, acts as a faithful mirror of the patient's transference. Unlike a real mirror, however, it only slowly reveals its secrets... Observation over a period of years has convinced me that...such subjective experiences can then be objectively observed and their relevance to the patient's material can be assessed" (p. 183; emphases added).

Thompson's metaphor of a *mirror*, used here to refer to the analyst's "inner experience," is particularly noteworthy in that Thomson does *not* appear to be emphasizing the

therapeutic process of “mirroring” (i.e., reflecting back *to patients* an empathic understanding of their affective experiences)—which has been increasingly referenced in more contemporary relational psychoanalytic approaches. Instead, Thomson seemed to imply that therapists’ “inner experiences” might serve as a relatively *reliable* source of information *for the analyst* of the contents of patients’ unconscious transference-related communications. A succinct illustration of this aspect of Thomson’s more “one-person” perspective winning out, can be heard in his comparison of analysts’ somatic-level responses to their patients to “one’s *kinesthetic* reaction to a work of art” (p. 185; emphasis added).

Where Thomson’s (1980) ideas most differed, I would argue, from Jacobs’ (1973) were in his embrace of the analysts’ “inner experiences”—inclusive of a detailed variety of subjective somatosensory-level responses—as opposed to Jacobs’ (1973) ultimately more technical focus on *behavioral* manifestations of analysts’ somatic-level experiences in relation to patients and the analytic process. Interestingly, as rich and detailed as Thomson’s (1980) clinical descriptions are with regard to disclosing his own idiosyncratic “inner experiences”—including particular types of visceral sensations, imagistic reverie, and even specific neologisms that occurred to him in response to his patients’ material—Thomson does not appear to have been particularly concerned with the ways that *analysts’ own* past or present experiences might potentially influence the ensuing psychotherapy process. In other words, the extent to which the psychotherapy process may, in fact, constitute a uniquely inseparable *co-construction* of both patient’s and analyst’s unconscious and conscious contributions to the therapeutic relationship is seemingly not yet appreciated by Thomson or, for that matter, by other clinician-theorists writing from a more classical psychoanalytic perspective.

Thomson, for example, stated briefly: “as a matter of course...the analyst’s subjective experience contains much *irrelevant distraction emanating from his personal inner life*” (p. 184; emphasis added). However, as was also the case with Jacobs (1973), the primary emphasis and responsibility was ultimately left to the analyst’s ability to “clear his mind of *distracting* preoccupations” and, thereby, gain access to the clinical tools of his (sic) own subjective “inner experiences” to help “reveal” the “secrets” hiding among patients’ unconscious processes: “Observation over a period of years has convinced me that...such *subjective* experiences can then be *objectively* observed and their relevance to the patient’s material can be assessed (p. 183; emphasis added).

Although technically aligned with classical psychoanalysis, Silverman’s (1991) article on “somatic correspondences” occurring between himself and his patients represents a relatively unique approach to the study of somatosensory transmission phenomena within the psychotherapy literatures. Silverman defined “somatic correspondences” as those clinical instances in which “[t]he symptom in the analyst is identical or closely related to the one felt by the patient immediately or soon thereafter” (p. 441). Silverman argued that instances of “somatic correspondence” were facilitated by “unconscious channels of communication” between patients and therapists, and that “deep psychological roots” could often be discerned as facilitating these dramatic clinical occurrences (p. 444). With surprising specificity, Silverman argued that it was the “near simultaneity and qualitative similarity of unconscious conflict facets *residual in analyst and ongoing in patient*...[that] appears to be the trigger for the correspondence” (p. 444; emphasis added). The following is a prototypic outline of what Silverman observed in each of the twelve instances of “somatic correspondence” that he documented:

“[E]ven though the patient is unaware of what is happening in the analyst [ie., physical symptoms or sensations], almost immediately thereafter the patient mentions that he is experiencing a somatic symptom that is either closely related or identical. His further verbalized associations indicate that he is going through an experience that has roots in *conflict areas comparable to the analyst's*.” (p. 442; emphasis added)

Like Thomson (1980), Silverman’s (1991) detailed process notes contain abundant evidence of the analyst’s own personal thoughts, feelings, and somatic-level associations while engaged in listening to his patients’ verbal associations. Silverman argued, in fact, that maintaining such detailed process notes allowed him to identify many examples (i.e., twelve) of “somatic correspondence” across a number of his patients (i.e., six), during the relatively brief “four-month period” in which Silverman claimed to have studied these particular clinical phenomena (p. 422).

The meticulously documented instances of “somatic correspondence” that Silverman (1991) recounted include examples of corresponding joint pains (pp. 423-425), corresponding ocular pains (pp. 425-427), corresponding urinary tract symptoms (pp. 427-429), corresponding arrhythmias (pp. 429-431), corresponding tooth-related pains (pp. 432-433), corresponding headaches (pp. 439-440), and, even, corresponding pain sensations in both the patient’s and analyst’s nipples (pp. 434-435). In each of these examples of “somatic correspondence,” Silverman provided evidence in the form of meticulous process notes documenting his own experiences of physical symptoms coinciding *precisely* with the physical reports of his patients while free-associating on the couch. Silverman also offered detailed clinical data to further contextualize and support his arguments regarding the psychodynamic underpinnings of these

transactions—in each case, adhering to a prototypic model for “somatic correspondences” that involved the coincidental activation and intensification of unconscious, conflict-laden material that was common to *both* patient and analyst.

The following clinical excerpt, in which Silverman ultimately associated his own unexplained (i.e., “no physical pathology found”; p. 425) “left hip pain” and his patient’s simultaneous and similarly unexplained left-shoulder pain with coinciding unconscious conflicts involving guilty feelings related to a father-son relationship (p. 442), clearly encapsulates Silverman’s analytic approach to “somatic correspondences”:

“Several days before the analytic hour reported, [the analyst] reacts psychologically to a personal experience: his son has left home and [the analyst] now lives alone. He also experiences left hip pain intermittently, suspects involvement of a significant psychological factor, and tries to clarify the connection for himself. He is preoccupied with this—especially the role of identification (his son had a possible disc problem with pain radiating down the left leg)—before the reported analytic hour begins. When it does, [the analyst] is in pain but tries to focus on [the patient]’s spoken associations. The very first of these indicates that [the patient] also is now experiencing pain (left shoulder) that has been intermittently present for several days, beginning shortly after [the analyst]’s onset of pain. [The patient] knows nothing about [the analyst]’s bodily symptom or feelings, and there are no sensory cues pointing to this before or during the session. [The patient]’s further associations indicate he is reacting emotionally to a relative’s visit. [The analyst], having his own and [the patient]’s associations available, is able to explore roots of the somatic correspondence. He notes certain qualitative similarities. These are in the form of derivatives of unconscious conflict involving a “maternal” father-son relationship, particularly with regard to aspects of somatic identification. Residues of such a complex have been stirred up transiently in [the analyst] by events external to the analysis. In [the patient] the complex has been ongoing but not prominent until now when it has also been activated by external events. Long-term quantitative disparity in this particular aspect—the father-son relationship—is lessened to approximation short term. This brief interval of approximation appears to be the time favorable for the correspondence to occur and at least a partial

answer (from a psychological standpoint) to why correspondences occur at some times and not at others" (pp. 441-442).

Understanding and evaluating Silverman's (1991) rather unique and remarkably specific approach to somatosensory transmission phenomena becomes clearer when one considers Silverman's prior interest in the more general category of clinically relevant "correspondences" (Silverman, 1988). In fact, Silverman conceptualized "somatic correspondences" as a subcategory of this larger group of clinical phenomena, which he argued included "cognitive correspondences" or "telepathy" (Silverman, 1991; p. 422; see also, Silverman, 1988).

Silverman traced his interest in the broader category of clinically relevant *correspondences* to Ehrenwald's (1971) earlier focus on the mother-child relationship, and, in particular, its capacities for "extra-sensory perception" (ESP). In essence, Silverman's (1988; 1991) work expanded upon Ehrenwald's contentions that ESP—which Silverman referred to as "correspondence"—was, in effect, "the embryological matrix of communication that is later destined to be superseded by speech" (p. 443) and that these developmentally-earlier forms of communication tended to be confined to "distress calls or messages of comfort" between infants and mothers (p. 443). It was, therefore, on this basis that Silverman (1991) formulated one additional proposal regarding "somatic correspondences"—namely, that "*preoedipal aspects of unconscious conflict are more apt to be reflected in somatic correspondence, whereas oedipal aspects are more likely to be expressed in cognitive correspondence*" (p. 445; emphasis added).

Further evidence of Silverman's (1991) distinct approach to studying psychotherapy-related somatosensory transmissions can be measured by the fact that this article was the only example in the existing psychotherapy literatures to have cited

instances of somatosensory transmission purportedly *originating in the body of the therapist*—and, *only later*, manifesting in patients' clinical presentations or verbal associations. Perhaps, as a function of his more *correlational* approach to the study of somatosensory transmissions (i.e., in general, placing significantly less emphasis than other writers on particular *causal* or diagnostic and clinical implications of such instances of “somatic correspondences”), as well as Silverman's surprising level of specificity—for example, in proposing that “somatic correspondences” were facilitated by the “near simultaneity and qualitative similarity of unconscious conflict facets residual in analyst and ongoing in patient” (p. 444)—it was tempting to dismiss the broader *generalizability* of Silverman's clinical illustrations and proposals. However, his article does represent one of the few relatively thorough examinations of psychotherapy-related somatosensory transmissions in the existing psychotherapy literatures, and, on this basis, I decided to err on the side of its inclusion.

Furthermore, while Silverman's (1991) primary emphasis seems to have been on providing correlational evidence regarding the *existence* of “somatic correspondences,” he did provide certain useful conceptual proposals that may contribute to our better understanding of these clinical phenomena and, perhaps, their therapeutic implications. In particular, Silverman emphasized and elaborated the potential contributions of *both participants' psychodynamics* to instances of somatic correspondences. Through his careful examination of subtle, non-verbal cues (e.g., “body language”; p. 433) that he imagined might eventually help to explain the mechanisms by which such “somatic” information was “communicated” between patients and therapists, Silverman promoted areas of future clinical investigation. Silverman can also be seen as elaborating Jacobs' (1973) and Thomson's (1980) earlier

suggestions that somatosensory transmissions in psychotherapy are associated with more physiologically-catheted conflict areas (Jacobs, 1973) and more severe psychopathology (Thomson, 1980) when he proposed that somatic correspondences could be associated with infantile “distress calls or messages of comfort” (p. 443) indicative of the “pre-oedipal aspects of unconscious conflicts” in certain adult patients (p. 445).

Because his article does not, however, articulate particular clinical implications of “somatic correspondences,” it is somewhat difficult to determine Silverman’s alignment with regard to “one-person” versus “two-person” conceptual frames. Certainly, his willingness to share (in his publications, if not, with his patients) intimate details regarding his own sometimes-physical influences upon certain patients’ clinical material would seem to suggest a more “two-person” sensibility with regard to his clinical work. However, his general adherence to a rather traditional technical stance involving patients lying on a couch and free-associating with limited interactions with the analyst—coupled with Silverman’s relatively specific and authoritative statements with regard to identifying the psychodynamic content-related precipitants of these “somatic correspondences”—illustrated, I believe, what some have called the “God’s-eye view” critique (Stolorow & Atwood, 1997; Greenberg, 1999) of more “one-person” psychoanalytic approaches. In other words, Silverman’s article on somatic correspondences depicts a psychoanalytic clinician who believed that he had relatively *unhindered* and *objective* access to *all* relevant clinical data—“[The analyst], having his own and [the patient]’s associations available, is able to explore roots of the somatic correspondence” (p. 444)—such that he could, therefore, with a surprising degree of specificity and apparent certainty, identify what he deemed to be the psychodynamic

determinants of these presumably complex transactions involving corresponding *subjective psychological and physical experiences of both himself and his patients.*

In another psychoanalytic article, Agger (1993) examined “what happens to the analyst’s ego...as a consequence of his or her daily empathic introspection with patients as significant others” (p. 403). Of particular relevance to this project, Agger referred to the “hypercathexis of the [analyst’s] *somatosensory* apparatus” (p. 414; emphasis added), which the author defined as “*physiological responses*, behavioral anomalies, and sensory images that are evoked or spontaneously generated either within the analytic setting or outside” (p. 408; emphasis added). Agger characterized these “somatosensory” responses by analysts as inevitable consequences of engaging in work in which “we [analysts] take in far more than we can process consciously” (p. 403). In terms of the potential clinical utility of attending to this expanded range of analysts’ potential responses to their patients, Agger mused:

“In order to listen well to another person’s affective nuances and basic conflicts...requires our own immersion into the analytic dyad’s intrapsychic matrix. Without interpenetration, there is neither empathy nor insight. With it, there are bound to be unnoticed effects. We can no more dismiss the many ways we personally respond to our analytic partners than could a workman give up the tools of his trade” (p. 405).

In this sense, Agger’s (1993) approach to somatosensory transmission phenomena would appear to have much in common with Jacobs’ (1973) and Thomson’s (1980) in that she conceptualized her somatosensory-level responses to patients as a particularly valuable source of “empathy and insight” with regard to her patients’ “affective nuances and basic conflicts” (p. 405). Similar to Thomson’s (1980) ideas

regarding somatic aspects of the analyst's "receptive function," Agger also explicitly formulated an understanding of her somatosensory-level "tools of the trade" in terms of the analyst's ego functions—citing several personal clinical examples of "somatic responses [that] illustrate the [analyst's] ego's effort at autoplasmic adaptation in the service of deeper empathic resonance between patient and analyst" (p. 416).

However, when one more closely examines the specific clinical material, which Agger (1993) provided to support her conceptualizations of, in particular, the "hypercathexis of the [analyst's] somatosensory apparatus" as a relatively normative aspect of the analytic process, one notes her reliance upon all-too-familiar, broadly defined understandings of "somatosensory" phenomena. In other words, nearly all of Agger's clinical examples would probably be more accurately characterized as *gestural* or *imagistic* responses to her patients. Agger did, however, include one clinical example that does seem to fit her earlier descriptions of a "physiological response" (p. 408) to a patient.

In this clinical illustration, Agger described her work with a middle-aged man who, after spending the majority of his 18 months in analytic treatment blaming himself for the dissolution of his 13-year marriage, began to turn his aggression on the analyst: "[H]e complained, shouted, ruminated, and belligerently attacked whatever I said, frequently slamming the door in fury as he left" (p. 414-415). On one particular day, Agger reports:

"I was silently musing about how cut off he was from his past and how useless it seemed to invite him yet again to look at what was transpiring between us. Suddenly, *my eyes filled with tears* as I said, almost tenderly, 'you're right, you know. Nobody will ever love you the way that your mother does.' *Consciously, the thought was that not even a mother could have loved such a self-absorbed, demanding child,*

*quite the reverse of my sincere affective response*" (p. 415; emphasis added).

Agger went on to describe her sudden tears and tender words as a turning point in her work with this man—an “enactment” (p. 406), which, upon self-reflection, allowed her to ultimately empathize more strongly with important aspects of this patient’s earlier experiences, which she reported that she had “known before” (p. 415) but had not sufficiently felt. Agger, for example, described her newfound empathic awareness of this patient’s “devastating” early losses—born while his father was overseas fighting in a war, having had his mother all to himself until his father’s return when he was approximately 18 months old (i.e., the precise length of time that this patient had reportedly been in treatment prior to “turning his aggression upon the analyst”), and, only a year later, being forced to share his mother once more when his younger sister had been born. In piecing together her own thoughts and feelings leading to her unexpected tears with this patient, Agger discovered that she had effectively “enacted” what must have been this patient’s mother’s experience: “no doubt I had become as unempathic as his harassed mother had been” (p. 415).

Certainly not the most dramatic example of a physical symptom or sensation occurring in an analyst’s body, Agger’s (1993) tears do seem to fit the general prototype of the subgroup of somatosensory transmissions—that is, relatively spontaneous, idiosyncratic physical sensations—that are the focus of this project, especially when one considers the striking disparity between her “physical” response and Agger’s more conscious thoughts and feelings regarding this patient. In fact, Agger’s clinical illustration of the “hypercathexis of the [analyst’s] somatosensory apparatus” (p. 414) challenged me to more explicitly consider an as-yet-unarticulated component of my working definition of somatosensory transmissions—which was, the extent to which a

defining characteristic of these clinically-relevant physical symptoms or sensations might be that they are, at least temporarily, relatively *ego-dystonic* or, otherwise, disconnected from potential emotional or psychological meaning(s) for the analyst.

An additional reason that I ultimately decided to include the aforementioned clinical illustration (Agger, 1993) is that I thought it served as a way of further highlighting some of the inherent difficulties in attempting to distinguish between analysts' physical, gestural, physiological, affective, imagistic, and emotional responses to their patients<sup>4</sup>.

Agger (1993), herself, characterized the aforementioned clinical material—intended, as it were, to illustrate her concept of “hypercathexis of the [analyst’s] somatosensory apparatus” (p. 414)...“in the service of deeper empathic resonance between patient and analyst” (p. 416)—both as representative of a “physiological response” (p. 408) on her part *and* as “a sincere affective response” (p. 415). Agger’s descriptions of this clinical example as both “physiological” and “affective”, therefore, highlights another source of confusion, I believe, in attempting to tease-out clinical instances in which therapists experience clinically-relevant physical or physiological

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<sup>4</sup> As an illustration of these challenges of attempting to draw fine distinctions between subtypes of somatosensory transmissions between patients and therapists in order to investigate those clinical phenomena characterized by dramatic, idiosyncratic physical symptoms or sensations, I ultimately decided not to include another reference that was, in fact, cited by several authors as an example of “somatic countertransference”—Akhtar’s (1991) reference to a persistent and evocative image that occurred to him (the analyst) repeatedly in his early work with a young woman: “in which a little baby was pierced by a long spear. Bleeding and still attached to the end of the spear, the baby spun helplessly” (p. 110). Akhtar wrote that he later discovered his patient had been sexually abused by her mother as an infant: “it was still later that we were able to reconstruct that the patient’s own genitals had been traumatically over-stimulated by her mother, who had long red nails (the bloody spear!)” (p. 110-111). Once again, I have elected not to include this and similar references to analysts’ clinically-relevant “hypnogogic” experiences because I believe that such instances may be usefully differentiated from the subcategory of somatosensory transmissions involving analysts’ relatively spontaneous, idiosyncratic *physical symptoms* or *sensations*. Furthermore, the clinical utility of analysts’ imagistic reveries have already been considered and examined more thoroughly by others (Flannery, 1979; Thomson, 1980; Frayn, 1987; Ogden, 1999).

responses in relation to their work with certain patients.

Contemporary theories of affect and emotion-related information-processing models (Silvan, 1962; Basch, 1976; Krystal, 1988; Damasio, 1994; 1999; LeDoux, 1996; Frattoroli, 2001; Bucci, 2005) have emphasized a psychophysiological continuum—from relatively non-conscious, physiologically-driven “affective” experiences to relatively more conscious and psychological “feeling” states. As such, one thing that Agger’s (1993) alternating descriptions of her clinical experience (i.e., as both “physiological” and “affective”) may indicate is the extent to which there has been an increasing appreciation of this psychophysiological continuum with regard to human emotions.

However, to the extent that such references to analysts’ “affective” experiences in response to patients might also reflect yet another overly vague term characterizing analysts’ “primary process” or “internal experiences” in relation to their clinical work, I had also seemingly stumbled upon yet another factor (i.e., the neurophysiological continuum of human affective experience) further complicating my efforts to explore the extreme *physical* boundaries of intersubjective communication between patients and therapists. For the most part, therefore, I decided to omit from this review existing references to therapists’ clinically-relevant, but primarily “affective” responses to their patients—unless such “affective” responses were also clearly accompanied by descriptions of physical sensations or physiological symptoms.

Consistent with other authors who have examined somatosensory transmission phenomena (Jacobs, 1973; Thomson, 1980), Agger (1993) considered the particular characteristics of certain analysts that might facilitate these clinical phenomena.

Uniquely, however, Agger speculated that a:

“non-linear listening model may be determined more by dominating right-hemisphere functions than by a function of gender. It would seem that as we grow in experience, the linear thinker has to become more spatial and more comfortable with dissonance, the spatial [or maternal?] listener more selective in attunement and regulation. Individual style of listening, linear versus spatial, may determine the specificity of response and the way we formulate interpretations” (p. 416).

In other words, Agger implied that she had considered potential gender differences in clinicians’ relative attunement and responsiveness to their patients—gender differences, for example, supported by Hoffman’s (1977) research indicating that female infants respond more “empathically” to the sounds of other infants crying. Agger ultimately, however, emphasized the more gender-neutral distinction of “linear vs. non-linear listening models” as the relevant clinician-related variable in determining the relative likelihood of an individual analyst’s experiencing such somatosensory transmission phenomena in his or her work with patients.

There would appear to be an implicit assumption embedded within Agger’s (1993) ideas regarding “non-linear listening models,” which is that certain patients with developmentally “earlier” conflicts may pull for this particular listening style in analysts. Agger, however, does not otherwise explicitly comment on particular types of patients more likely to elicit or be involved in such “somatosensory” psychotherapy occurrences—which tends to support Agger’s other statements regarding the “hypercathexis of the [analyst’s] somatosensory apparatus” being a relatively normative aspect of analytic work.

In terms of comparing more “one-person” and “two-person” approaches to psychotherapy, Agger’s approach is most aligned with Thomson’s (1980) in terms of

both acknowledging the necessity of the analyst's "immersion" and "interpenetration" within what she referred to as the "intrapsychic matrix" of the psychotherapy, while, ultimately, relying upon analysts' abilities to assume a relatively *objective* perspective and effectively interpret the *contents* of patients' unconscious processes in spite of inevitable "interference"—which can sometimes assume the form of analysts' "physiological" experiences and sensations:

"Like the carpenter who builds up callouses [sic] in the course of handling tools to work and reshape substances, the analyst accumulates *abrasions and rough spots inside his skin*. These mogul-like deflectors *interfere* with the acoustics, increasing the likelihood of aural *fallacies*. The result is a countertransference response, or, in the language of today, enactment...Assuming a three-drive generative model, each analyst theoretically is free, through his continuing self-inquiry, to discover the nature of his own character and style. It should then be possible to *determine which inhibitor has contributed to a specific, now identified, enactment*" (p. 406).

In summary, I want to emphasize the following points with regard to the preceding classical psychoanalytic literature that is directly relevant to somatosensory transmission phenomena. Contrary to my initial expectations, I discovered that several psychoanalytic theorists and practitioners, who were aligned with more traditional psychoanalytic principles, have, indeed, investigated therapists' relatively spontaneous, idiosyncratic physical symptoms or sensations occurring in relation to clinical work (Jacobs, 1973; Thomson, 1980; Silverman, 1991; Agger, 1993). As will, no doubt, become clearer through subsequent comparisons with the literatures of other psychotherapy orientations, these classical psychoanalytic articles, in fact, represent some of the most detailed observations of actual clinical instances of somatosensory transmission phenomena yet to appear in the psychotherapy literatures.

In spite of these theorists' rather explicit acknowledgment of the importance of attending to increasingly *subjective* sources of information about patients' unconscious processes and communications—including, in some cases, *their own physical sensations* in relation to the clinical process with certain patients—each of these writers can, ultimately, be seen as primarily relying upon “one-person” principles such as analytic *objectivity* and *technical neutrality* used to gather such clinical “data” and assess its specific meaning(s) with regard to patients' psychodynamic conflicts. Consistent with this more “one-person” conceptual perspective, even where there has been explicit mention of analysts' potential contributions to somatosensory transmissions (Jacobs, 1973; Thomson, 1980; Silverman, 1991), the overarching presupposition has remained that analysts must be able to technically distinguish (as well as limit) their own contributions to the psychotherapy process, and, in so doing, *as-objectively-as-possible* discern the particular meanings of *patients'* unconscious communications, even when such meanings may be embedded within psychotherapists' *own* subjective somatosensory experiences.

### *Object Relational Psychoanalysis*

Each of the following references concerning psychotherapy-related somatosensory transmission phenomena also comes from the psychoanalytic literature. These articles, however, can be distinguished (i.e., from classical psychoanalysis) by the extent to which the clinical metaphor of the mother-infant relationship—also mentioned to some extent in the preceding section's references [e.g., Jacobs' (1973) citations of Burlingham (1967) and Greenson (1967); Silverman's citation of Ehrenwald (1971)]—came to predominate these theorists' conceptual frameworks. Generally

speaking, from an object relational perspective there is a comparatively greater emphasis placed upon the mother-infant relationship as a metaphor for the patient-therapist relationship. As such, the concept of the “early maternal transference” (Greenacre, 1954; Grunberger, 1957), as well as the *process* by which psychoanalysts actively facilitate the emergence of these “early”, “infantile”, “primitive”, or “pre-oedipal” transferences within the treatment relationship, are of particular importance for *object relations* theorists and practitioners. Relatively speaking, this approach may be seen as more *process*-focused and, therefore, relatively more “two-person” when compared with the greater emphasis placed upon psychoanalytic *content* (i.e., the more “one-person” approach of “the archeological dig” clinical metaphor, whereby analysts primarily decipher *as-objectively-as-possible* the *contents* of patients’ unconscious fantasies) in the previous section’s references<sup>5</sup>.

More specifically, *object relations* theorists have tended to emphasize the role of “primitive communicative mechanisms”—represented, for example, by integrations of Bion’s (1959) “interpersonalized” reformulation of projective identification (Wrye & Welles, 1989; DaSilva, 1990; Mitchell & Black, 1995)—in their efforts to make sense of psychotherapy-related somatosensory transmissions. Several authors whose work I review in this section explicitly incorporate Bion’s “alimentary” metaphor for the thinking apparatus (Bion, 1959)—whereby the mother (or analyst) is seen as using her

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<sup>5</sup> Although both Thomson’s (1980) and Agger’s (1993) acknowledgements in the previous section of the necessity of analysts’ “immersion” into patients’ unconscious processes might also be seen as reflecting a process-oriented shift within psychoanalysis, it must be noted that both of these more *classical* theorists primarily argued that such “immersions,” ultimately, promoted gathering information (i.e., “content”) about patients’ unconscious processes. The shift in emphasis that is represented by the object relations theorists in this section might be better characterized as focusing on analysts’ “immersion” within a mother-infant-like relationship with their patients—in all of its inherent physicality and sensuality (at least metaphorically-speaking)—in order to, first-and-foremost, facilitate the emergence of what is understood by these theorists as an inherently therapeutic “early maternal transference” (Wrye & Welles, 1989; DaSilva, 1990).

own mind to “contain” and “metabolize” formerly “indigestible” and, therefore, projected-out aspects of the infant’s (patient’s) experience—as a particularly apt model for understanding analysts’ spontaneous, idiosyncratic physical sensations and bodily symptoms occurring in certain clinical contexts (DaSilva, 1990; Wrye & Welles, 1994; Sands, 1997a). Other object relational theorists have elaborated the influences of Winnicott’s ideas—for example, Winnicott’s concepts of “transitional objects” and the “false self”—as relevant to the underlying psychological mechanisms responsible for somatosensory transmissions in psychotherapy (Wrye, 1998; Orbach, 1995; 2000; 2003; 2004; 2006).

Because of their relative reliance upon the mother-infant relationship as a clinical metaphor, object relational theorists, to a greater degree than was evident in the previous group of classical theorists, have also tended to utilize a noticeably more physical, *sensual* language into their clinical illustrations—especially, in describing the qualities of “maternal” transferences and countertransferences, which these writers highlight as among the most mutative aspects of their work with most, if not all, patients. However, from the perspective of this particular investigation—into the nature of relatively spontaneous, idiosyncratic physical sensations and bodily symptoms experienced by psychotherapists—the relatively common use of physical and physiological *metaphors* in these theorists’ clinical illustrations has presented additional challenges with regard to teasing-out *actual* instances of somatosensory transmission. In other words, I often found myself having to be especially sensitive to identifying what the actual *physical* characteristics of these therapists’ experiences may have been—differentiating them, if possible, from metaphorical flourishes that have

tended to characterize these theorists' way of thinking and writing about their work<sup>6</sup>. Once again, I have attempted, whenever possible, to carefully distinguish and emphasize those references that seem to most clearly identify and document dramatic instances of somatosensory transmission involving therapists' relatively spontaneous, idiosyncratic physical sensations or physiological symptoms—even while I also highlight the increased tendency among object relational theorists to characterize a broader range of clinically-relevant, non-verbal communication using more sensual language intended to evoke the metaphor of the mother-infant relationship for the psychotherapy relationship.

DaSilva's (1990) article on 'borborygmi' is among the earliest and most commonly cited examples of an object relational approach to somatosensory transmission phenomena. DaSilva focused on what he termed "the *psychophysiological* ritual of the analytic situation...whereby a fundamental maternal transference is set into motion in response to the 'syndrome of being a patient in analysis'" (p. 657; emphasis added). DaSilva described his own clinically-relevant experiences with regard to a particular range of "psychophysiological" phenomena known as borborygmi, or "rumbling and gurgling abdominal sounds" (p. 641). DaSilva's article focused on the potential for patients' *and analysts'* (sometimes coinciding) borborygmi to serve a signaling function within the context of psychoanalysis—that is, as unconscious "markers" of the emergence of "a very intimate merging relationship" between patient

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<sup>6</sup> Although beyond the scope of this investigation, I would like to briefly note the relevance of contemporary linguistic theories (e.g., Lakoff & Johnson, 1980), which argue that, essentially, our "physical", "somatic," "embodied" experiences constitute the basis from which *all* of our verbal, symbolic representations (e.g., "metaphors"; see Lakoff & Johnson) derive. Therefore, what I intend to emphasize here is, more accurately, the greater *extent* to which *object relations* theorists tend to incorporate (as compared to classical writers) physical and sensual language and metaphors into their clinical illustrations.

and therapist (p. 642). DaSilva further characterized borborygmi's symbolic function as possibly "signal[ing] the process and acquisition of new thoughts" (p. 658) made possible by activation of the "primitive maternal transference" (p. 647).

DaSilva's (1990) preferred term for the analyst's "psychophysiological" involvement in the therapeutic process was "body listening" (following Lichtenberg, 1983; O'Shaughnessy, 1984)<sup>7</sup>. DaSilva reported that such "body listening" tended to coincide with certain "regressed moments" in psychotherapy (p. 655) and that these moments had on several occasions included "an awareness of sensations and borborygmi in my own body" (p. 655).

In the first of two brief-but-pertinent clinical illustrations, DaSilva (1990) described a particular moment in his treatment of a male patient who happened to be treating symptoms of indigestion by ingesting papaya. At his patient's mention of "papaya," DaSilva reported noticing his own borborygmi, followed by several clinically-meaningful associations—first, to the phrase "papa-ya! (in French and in baby talk: *papa est là*, daddy is there, inside)" (p. 652) and, subsequently, to "Popeye" the fictional strongman. DaSilva reported being able to utilize these associations—initially sparked (and marked) by his own "psychophysiological" borborygmi—to ultimately interpret

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<sup>7</sup> Lichtenberg (1983) coined the term "bodily listening" when emphasizing, on the basis of then-contemporary infant research, the therapeutic function of analysts' *physical* and affective attunement with patients. O'Shaughnessy (1984) later took issue with Lichtenberg's (1983) characterization of these moments (i.e., "instance of body listening") as relatively "rare" (p. 211). O'Shaughnessy characterized her own conceptualization of "body listening" as rooted in "unconscious communication that repeats the emotional preverbal ties between mother and child" (p. 493). O'Shaughnessy argued that "instances of bodily listening" in therapy were not "rare," but were, indeed, "regular occurrence[s] in psychoanalysis through which our patients communicate experiences that had and have no words" (p. 493-494). However, unlike DaSilva (1990), neither Lichtenberg (1983) nor O'Shaughnessy (1984) provided further clinical material to illustrate specific clinical instances of "body/bodily listening."

his patient's longed-for relationship to "the strong father of his childhood at the time his father had not yet become a defeated man, bankrupt and alcoholic" (p. 652).

In the second clinical illustration, which emphasized DaSilva's (1990) conceptualization of such clinically-relevant borborygmi in terms of Bion's "alimentary model of the mind" (p. 644), DaSilva reported working with a woman who was facing "the very painful issue of whether or not to divorce her husband" when he noticed "feeble borborygmic sounds coming from my bowels...unnoticed by my patient" (p. 647). DaSilva continued:

"a moment later she produced borborygmic sounds herself and, inattentive to them, pursued her free association, declaring she had never before been confronted by such a '*gut-wrenching*' decision! She added that in her family divorce had been *unthinkable* and that she had never thought she would ever have to even *consider* such a dilemma!" (p. 647; italics from original).

In contrast to nearly all other references that I cite in this chapter's literature review, DaSilva (1990) noted specific neurophysiological research to support his claims regarding these clinically-relevant somatosensory phenomena—referring to the "long-established fact that emotions influence the contractions and the motility of the gastrointestinal tract...secretions of enzymes and coloration of the viscera due to alterations in the flow of blood" (p. 642). Essentially, DaSilva argued that his patients' emotional experiences—especially, under the sway of the maternal transference—could sometimes manifest in physiological changes consistent with the production of borborygmi (presumably for both patient and therapist).

At the more psychological level of abstraction, DaSilva integrated aspects of both Freudian drive theory and Bion's 'alimentary model' of the thinking apparatus in order

to better understand these clinical occurrences. More specifically, he referenced Freud's conceptualization of early psychological development in terms of moving from 'the pleasure principle' to 'the reality principle' in arguing that borborygmi were essentially:

“sensory-affective-motor schemata anterior to the verbal stage of development related to the faulty ‘experience of satisfaction’ in the days of babyhood when fed by the mother, dynamically active in the form of ‘body memories’ and still seeking expression...[which emerge in therapy as] accompaniments of an hallucinatory experience of being fed by the analyst” (p. 647).

In other words, DaSilva (1990) argued that borborygmi constituted a physiological remnant of the early developmental process whereby an infant progressed from a state of unmet gratification of its needs toward a thinking self, capable of delayed gratification (based on Freud, 1895, 1900, and 1911). DaSilva (1990) also incorporated Bion's "alimentary model" with regard to the "metabolizing" function of the mother (analyst) in helping the infant (patient) to transform overwhelming *physical* experiences into thoughts (i.e., *emotionally*-tinged memories) that could be raised into consciousness, symbolized in words, and shared with others.

One of DaSilva's major contributions, I would argue—that is, beyond his integration of Freudian and Bionian concepts toward the more nuanced understanding of certain somatosensory transmission phenomena—was his appreciation for the physical and physiological means by which therapists' own bodily processes might be enlisted to serve what had formerly been conceived as *metaphorical* functions of the analyst to "contain" and "metabolize" patients' unprocessed experiences. In fact, I would suggest that DaSilva's work managed to better "metabolize," for me at least, some of Freud's and Bion's rather *disembodied* theoretical formulations—in the process of

developing a clinical approach that explicitly involved rather intimate physical and physiological-level transactions between patients and therapists.

In terms of when or under what clinical circumstances “body listening” might be more likely to take place, DaSilva (1990) stated that his own clinically-relevant experiences of borborygmi often occurred when “patients’ material has touched upon my own sensitive wounds” (pg. 646). DaSilva does not elaborate upon this, nor provide any more specific information in regard to what he meant by his “wounds,” nor on how he might work generally with such evocations of his own painful past experiences. In terms of his more general therapeutic stance, he wrote:

“I have found...that a particular state of body and mind in the analyst is a precondition; it is a state of deep ‘reverie’ in which I feel I am more attentive to the ‘music’ of the session than to its precise verbal content and which I would describe as sensory and ‘affective attunement’ (Stern, 1985). It requires in the analyst a state of considerable abandon to self-intimacy” (p. 655)

In DaSilva’s (1990) thoughtful article on clinically-relevant instances of sometimes-coinciding borborygmi in patients and their therapists, one notices a familiar tension between “one-person” and “two-person” conceptual frames. On the one hand, DaSilva has focused significant attention on deciphering the particular symbolic meanings of gastrointestinal “gurblings” from a more classical, “one-person” perspective: “[b]orborygmi may be witnesses to the bodily excitations and bodily tensions contained in encapsulated, split-off ‘body memories’. In their psychophysiological manifestations they are witnesses to emerging but previously repressed ‘pathogenic memories’” (p. 647). However, these concepts were clearly brought by DaSilva into a more “two-person” focus—when, for example, he described

psychoanalysis as a “two-body relationship” (p. 655), when he focused on the particular therapeutic implications of *physical* aspects of the relationship that exists between patients and therapists, and when he incorporated Bion’s (1959) reformulation of projective identification as *communicative*, as well as Bion’s (1959) “alimentary model” into his conceptual understanding and way of working with clinically-relevant somatosensory phenomena.

In general, however, DaSilva’s approach may be critiqued as somewhat less than “thoroughgoingly two-person” (Wachtel, 2008) by virtue of its overarching conceptualization of psychopathology as rooted in the preserved remnants of early experiences (i.e., internalized ‘object relations’) and a corresponding technical reliance upon the “primitive maternal transference” (p. 642), all of which, I would argue, tends to impede clinicians’ awareness of *alternative* contributions to the clinical process—such as patients’ more-recent-than-infancy or, even, present-day life experiences, including *real-life* relationships (especially, the *real-life* relationship that exists between patient and therapist)—aspects of which, may also contribute to potential somatosensory transmissions.

Although they are among the most prolific writers and theorists in the area of somatosensory transmission phenomena, the specific contributions of Wrye and Welles (1989; 1993; 1994; Welles & Wrye, 1991; Wrye, 1993; 1996; 1998) have been somewhat obscured, I believe, by their use of the term “erotic” (i.e., as in “maternal *erotic* transference/countertransference”) to characterize clinically-relevant somatosensory-level transactions in psychotherapy. Person (1997) characterized this particular aspect of their work when she noted “one of the overarching messages of

their work together is the necessity of attending to *communications transmitted through bodily feelings and sensations*" (p. 270; emphasis added).

In general, the approach of Wrye and Welles (1989; 1993; 1994; Welles & Wrye, 1991; Wrye, 1993; 1996; 1998) is consistent with DaSilva's (1990) in that these authors also conceive of psychoanalysis' primary therapeutic potential in terms of fostering a transformative "maternal erotic transference," or what they have also called "the reawakening in treatment of a passionate longing for the sensual pregenital mother/analyst" (1994; p. 35). In particular, Wrye and Welles emphasize the *sensual* and *sensorial* nature of such longing:

"[the maternal erotic transference] includes all manner of sensual bodily fantasies in relation to the analyst's body. We locate the origins of erotic experience in the preverbal arena, when the mother's and baby's contacts are really about dealing with bodily fluids. The infant, having once been literally encapsulated in mother's womb in amniotic fluid, experiences closeness to mother postnatally through contact with skin and bodily fluids, through her caretaking in relation to milk, drool, urine, feces, mucus, spit, tears, and perspiration. A mother's contact with and ministrations to her baby in dealing with these fluids may optimally create a slippery, sticky sensual adhesion in the relationship: it is, so to speak, the medium for bonding...It is precisely these physically encoded and generally repressed memories of the mother's voluptuous body that may be both longed for and feared by the adult in treatment. Maternal erotic transferences and countertransferences re-create this primal, preverbal, sensual-erotic contact between mother and infant, and often have a kind of juicy as well as gooey and messy dimension" (1994; p. 35).

Directly relevant, therefore, to my investigation of somatosensory transmissions, was Wrye and Welles clinical emphasis of "maternal erotic *countertransferences*" (1994; p. 61) evoked by patients' transferences—which can involve analysts' "*somatic* responses to [patient's] material, including 'melting' or sleepy feelings akin to the let-

down reflex during nursing, or *skin sensations* indicative that the relationship is being communicated and experienced on a preverbal, bodily level” (1994; p. 36; emphasis added). Not surprisingly, Wrye and Welles advocate particular analytic attention and sensitivity to these countertransferential manifestations of “very early, primitive, pre-oedipal” communications, which demand that the analyst “not only listen with the third ear but consciously *feel with our skin, our bones, and our viscera* our patients’ narratives of desire” (Wrye, 1998; p. 114-115; emphasis added).

Wrye and Welles (1989; 1993; 1994; Welles & Wrye, 1991; Wrye, 1993; 1996; 1998) have offered an abundance of clinical material to illustrate and further contextualize their theoretical perspectives. However, in contrast to DaSilva’s (1990) relatively specific depictions with regard to his own physical experiences of borborygmi in relation to his patients, the clinical illustrations of Wrye and Welles are less easily deciphered—at least insofar as the analyst’s actual physical or physiological experiences are concerned. This is primarily due to the relatively pervasive use of bodily-based metaphorical flourishes that inform descriptions of what, upon closer inspection, sound more like affective, and especially eroticized or sexualized, aspects of analysts’ experiences with their patients<sup>8</sup>. It is particularly revealing, I believe, that in the context of praising what she described as “the increasingly available reports of psychoanalysts describing their own *bodily countertransferences and resonances* to the *body states* of their patients” (Wrye, 1998; p. 114; emphasis added), Wrye cited only

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<sup>8</sup> I am aware that the reader may find the lines I am purposefully drawing between *erotic* desire and more *physical* and *physiological* manifestations of therapists’ interactions with patients to be somewhat arbitrary. However, I would restate that it is one of my overall intentions with this project—given what I perceive as the existing theoretical limitations and constraints of our discipline’s ability to clearly conceptualize of somatosensory transmission phenomena—to highlight the relative difficulties of investigating especially dramatic instances of spontaneous, idiosyncratic, physical sensations or bodily symptoms experienced by therapists in response to their clinical work.

two relevant examples (i.e., Ehrenberg, 1992; Davies, 1994)—both, well-known examples of analysts' clinically-relevant *erotic* feelings in relation to their patients.

One pertinent clinical illustration that has appeared in multiple publications (Welles & Wrye, 1991; Wrye & Welles, 1994) describes a 46-year-old male analysand with a life-long pattern of failed peer- and romantic relationships. The authors point to a particularly acerbic “internal object [of this patient’s]...dubbed ‘the Mocker’” which they speculated served the dual defensive functions of “constant companion” and “protector” against this patient’s pervasive (unconscious) assumption that “anal intercourse was the goal and end of every relationship; do it or be done to” (1991; p. 99). This patient reportedly displayed an “utter disregard for the personhood of his [female] sexual partners” (1991; p. 99) and also tended, at least initially, to disregard his (female) analyst’s presence in the room.

Understandably, the analyst reportedly experienced feeling: “stuck and trapped and filled with deadening material...dismantled, drained of vitality, initiative, sensuality and ideas” (p. 99). However, in working-through the potential countertransferential meaning(s) of these uncharacteristic responses to a patient, the analyst eventually:

“recognized that her inhibition of erotic resonance had at least two sources: first, the patient’s hateful and demeaning behavior towards women made any erotic consideration seem tantamount to the masochistic surrender he required of his lovers...[to which] she defensively substituted vigilance and the maintenance of authority for empathy and erotic access; secondly, and harder to identify, the insidious deadening of the relationship resulted in the analyst’s sensation of being a disjointed puppet with replaceable parts, a de-organized jigsaw puzzle. In this condition, she could not organize an erotic resonance” (p. 99).

After engaging in this self-analysis with regard to her countertransference, Welles and Wrye (1991) reported that the analyst “experienced an *intense physical sensation* reminiscent of nursing. It was as if the milk, long delayed, was finally let down, and with it a more fluid responsiveness emerged” (p. 100; emphasis added). This “more fluid responsiveness” permitted the analyst to become more aware of and empathic to the particular emotional meanings of what had formerly felt like a demand for masochistic surrender on her part by her patient—she became less threatened and came to see this as an expression of her patient’s own unconscious fears. Furthermore, we are told that this increased empathy for her patient resulted in her own gradual ability to feel like more of a person in the room, and, eventually, to be noticed as such by her patient:

“Analysis of the countertransference from the erotic point of view resulted in the analyst’s ability to behave like a whole, lively woman. Instead of wanting to overwhelm him, or wanting to kill him, or avoid his driven sexuality, she was able to contain and wish to nourish him and thereby begin the healing of the man” (p. 100).

Many of Wrye and Welles’ (1989; 1993; 1994; Welles & Wrye, 1991; Wrye, 1993; 1996; 1998) ideas—for example, their emphasis upon the infantile origins of adult sexuality and the therapeutic potential of the reemergence of these “physically-encoded and typically repressed memories” (1994; p. 35) in adult treatment—are consistent with classical (Freudian) psychoanalytic theory. However, object relational influences can also be felt, for example, in Wrye’s (1996) implicit references to Bion’s “alimentary model” of the mind in arguing that analysts must assume “a *bodily* state of mind” (p. 283; emphasis added) in order to permit the “patient’s desires and fears to

stir *somatic sensations* and fantasies in [the analyst], corresponding to the messy, erotic, terrifying, formless and wordless sensations that embodied the patient's earliest desire" (p. 288). Furthermore, Wrye (1998) has also integrated Winnicott's (1953) concept of "transitional objects" in arguing that psychoanalysts should conceptualize of the contemporary concept of "embodiment" in terms of "transitional" properties emerging out of the early mother-infant relationship.

Notwithstanding the aforementioned theoretical conceptualizations of clinically-relevant "viscerally tinged" communications between patients and therapists, Wrye (1998) struck a particularly consonant tone with my own original impetus and objectives for this project—investigating the *physical* boundaries of intersubjectivity—when she implied just how much there remained to be better understood with regard to somatosensory transmission phenomena:

"[H]ow can we, and how often do we, access the undeveloped early body before words? How can we reach the far more elusive and perhaps terrifying preoedipal body of boundary diffusion and fluid exchanges or the intrauterine "shared body" of mother and infant?" (p. 99).

"[H]ow can we enhance our analyzing instrument to be more attuned to *kinesthetic* and *sensory* cues?" (pg. 106; emphasis added)

While I certainly appreciated these underlying questions, which permeate the writings of Wrye and Welles (1989; 1993; 1994; Welles & Wrye, 1991; Wrye, 1993; 1996; 1998) with regard to better understanding such *visceral* clinical phenomena, I often found the answers offered by Wrye and Welles to be somewhat diffuse. For example, it was exceedingly difficult to know where, if ever, Wrye and Welles located

*actual* physical boundaries in terms of analysts' experiences. While they repeatedly emphasized *technical* boundaries:

“We must emphasize that as we talk about preverbal, body-based transferences and countertransferences, while encouraging resonance, indulgence, and play in fantasy, we insist that, however urgent the patient's desire for actual bodily contact, the work remain exclusively within the domain of fantasy and words” (1994; p. 62);

It was, however, often impossible to determine from their many clinical illustrations which experiences, if any, constituted actual *physical* sensations or *physiological* symptoms on the part of analysts—as opposed to what seemed more essentially metaphorical flourishes of language consistent with Wrye and Welles' overarching conceptual frame, which, of course, features “diffuse boundaries” as one of its central tenets.

Consistent with their approach's theoretical underpinnings in classical conceptualizations of early developmental processes, Wrye and Welles (1989; 1993; 1994; Welles & Wrye, 1991; Wrye, 1993; 1996; 1998) have tended to conceptualize maternal erotic transferences and countertransferences—and, therefore, the potential for analysts to experience “viscerally-tinged” communications rooted in their patients' earliest experiences—as a relatively *normative* aspect of psychoanalytic work. Person (1997), in fact, criticized this from her own more classical psychoanalytic standpoint: “[w]hile I have great admiration for their therapeutic work with significantly disturbed patients, I have reservations about their attempt to universalize their material” (p. 267). Person argued that such clinical transactions (i.e., clinically-relevant somatic-level interactions) were “rare” and “much less prominent in better integrated patients” (p. 267).

Although they, for the most part, conceptualized maternal erotic transferences/countertransferences as normative aspects of the therapeutic process with a broad range of patients, Wrye and Welles did raise one important issue with regard to the specific characteristics of *analysts* that could contribute to the likelihood of encountering such somatosensory phenomena within individual treatments. They stated:

“We believe it likely that patients’ maternal erotic transferences in their pregenital forms often go unrecognized and unacknowledged by some male analysts in defense against regressive immersion in the boundariless erotic fusion” (1994; p. 85).

Largely in agreement with Wrye and Welles’ (1994) assertion that male psychoanalysts may be particularly vulnerable to the “myopic” perspective that emphasizes “oedipal” conflicts over an appreciation of patients’ “earliest somatic-affective states” (1999; p. 23), Wayne (1998; 1999) has sought to further clarify this perspective by arguing that male analysts were not only capable of effectively confronting such “pre-oedipal” material in their patients, but that such confrontations offered the added potential of encouraging the male analyst to “find and come alive to the *bodily sensations*, sensory images, and the wild, unprocessed residues of his own infancy and early childhood” (1998; p. 105; emphasis added).

Reflecting the considerable tensions between “one-person” and “two-person” conceptualizations that often accompany discussions of psychotherapy-related somatosensory transmission phenomena, Wrye and Welles have been criticized from both sides. Person (1997), arguing from what would likely be seen as the more

traditional “one-person” perspective in psychoanalysis, equated the approach advocated by Wrye and Welles to promoting “a deficit-recovery model of cure, what used to be called a ‘corrective emotional experience’” (p. 268)—a relatively common short-hand criticism of certain psychoanalytic perspectives that emphasize the “two-person” interpersonal aspects of the treatment relationship as mutative.

On the other hand, Wrye and Welles have also been criticized by Wayne (1998) for having adopted an overly “one-person” approach to countertransference—that is, in terms of characterizing the analyst’s maternal erotic countertransference feelings and sensations as indicative of analysts’ own unconscious “blocking” (1994; p. 61) of the emergence of patients’ necessary maternal erotic transferences and, therefore, impeding progress in treatment. In other words, Wayne rightly, I think, criticized Wrye and Welles’ substitution of the traditional “one-person” ideal of the analyst as “blank slate” with another unrealistic “one-person” approach to countertransference—that is, the analyst as an idealized maternal object. Wayne (1998), who otherwise seemed to adopt Wrye and Welles’ conceptual framework, argued that maternal erotic countertransferences, in particular, were better seen as *evidence* of—rather than obstacles to—analysts’ “receptivity” to their patients’ transferences (1998; p. 105).

Even more than was the case with DaSilva (1990), one can hear in the writing of Wrye and Welles (1989; 1993; 1994; as well as Wayne, 1998; 1999) a certain rigidity with regard to their conceptualization of the “maternal erotic transference/countertransference,” which could impose constraints upon the analyst’s ability to think of his or her own contributions in terms other than those related to the mother-infant metaphor for the treatment relationship. In other words, it is not difficult to imagine how such a therapeutic framework might inadvertently obscure analysts’

ability to engage patients in a manner that is conscious of both patients' *and* therapist's *more-recent-than-infancy*, concurrent, and co-constructed influences upon the psychotherapy process—in particular, when considering the potential meanings of therapist's own relatively spontaneous, idiosyncratic, physical sensations relative to the clinical process.

Orbach (1986; 1995; 2000; 2003; 2004; 2006; Orbach & Carroll, 2006) is another prolific clinician-theorist in the area of psychotherapy-related somatosensory transmissions. Orbach's therapeutic orientation is broadly consistent with other object relations practitioners in terms of providing a "corrective" maternal object relationship—which patients may gradually "internalize" and, thereby overcome psychopathology that is often understood as rooted in early-life experiences. In contrast to DaSilva (1990) and Wrye and Welles (1989; 1993; 1994; Welles & Wrye, 1991; Wrye, 1993; 1996; 1998), Orbach has tended to conceptualize and describe patients' earliest experiences in terms of Attachment Theory (Bowlby, 1969). Orbach has also extended the more generic object relations perspective in ways that are specifically relevant to somatosensory transmission phenomena—through her conceptualization of "body subjectivity" (2004; p. 148) and "corporeal intersubjectivity" (2006; p. 97), and via her more specific formulations regarding the "early attachment" origins of what she has called the "false body" (1995; 2004; 2006), based on an elaboration of Winnicott's (1965) concept of the "false self."

In general, Orbach (1986; 1995; 2000; 2003; 2004; 2006) has promoted a conceptual and clinical framework that more thoroughly attends to patients' subjective bodily experiences (2006; p. 89)—via an explicit technical reliance upon her own "body countertransferences" (2000; 2004; 2006). Of particular relevance to this investigation

of somatosensory transmission phenomena, Orbach has argued that certain patients' "false body" constellations (described in more detail below) are especially likely to manifest in dramatic, somatic-level "body countertransferences" (2004; p. 144). Orbach has also provided several pertinent clinical illustrations (2000; 2004; 2006).

The general theme that runs through most of Orbach's work is that not enough attention has been given by psychoanalysts in particular to patients' "subjective experience of the body as a body" (2006; p. 89), which Orbach also referred to as "body subjectivity" (2004; p. 143)—and has conceptualized as the developmental history or narrative of an individual patient's subjective bodily experience:

"Like the psyches we are bequeathed and create, and with which we then live and that have everything to do with the cultural and psychological disposition of the psyches of those who raised us, so the bodies we are bequeathed and create, and with which we then live, have everything to do with the cultural and psychological disposition of the bodies of those who first gave us our bodies as well as, of course, our internalization of their experience of their bodies" (2006; p. 92-93).

Furthermore, Orbach has argued that individual patients' "body subjectivities"—especially the "troubled bodies" (2006; p. 92) that she claims often present for psychotherapy—may *only* be communicable or able to be understood *at a bodily level* (i.e., *not* in terms of *symbolic* properties related to more emotional or psychological experiences, but as a kind of *irreducible physicality* that Orbach argued therapists must be able to attend to and *feel* in their own bodies):

"Rarely is it the body qua body, for the accounts of the body we hear, *if we can hear them*, can be so utterly disturbing and personally challenging that, in place of engagement, we find ourselves slipping into one or another mode of

translation...We can find ourselves being ever so clever and making language about emotional pain. Our longing, my longing, is that my patient not suffer so, that my patient feel less impelled to physically attack inside or outside of himself or herself. I want something to quiet my own and my patient's pain. But, if I am not careful, what has so moved me in the patient's vernacular becomes displaced by words of mind, which make the body a symbolic referent rather than the site for the enunciation of extreme distress...Seeing bodily symptoms and behaviors only metaphorically risks leaving them stranded with transliteration rather than a potential antidote. We fall into an epistemological trap in which we forget, or fail to consider, the ways in which, *the body is a relational body*, presents itself in our consulting room as responding to, in dialogue with and needing, *our body*" (Orbach, 2006; pp. 95-96; italics from original).

Of particular note in Orbach's conceptual framework (especially, in terms of my designation of her work to the object relations section of this review), is her emphasis upon the overarching influence of *early* experiences, which she has often written about in the language of attachment theory (Bowlby, 1969):

"Although Attachment Theory is unaccustomed to thinking of the body in attachment terms or recognizing how the attachment system works at enabling a body to develop in the particular forms that it does, we can imagine quite easily how the avoidant, ambivalent, secure and insecure body are examples of how attachment dynamics play out at the physical level and what difficulties at that level mean in terms of the insecure, disorganized or secure sense of bodily self an individual develops" (Orbach, 2004; p. 142-143).

Orbach's emphasis on early experience is also implicit in her elaboration of the concept of the "false body" (1986; 1995; 2000; 2003; 2004; 2006):

"[w]hen secure attachment is not available the child will internalize the caregiver's defenses (Eichenbaum & Orbach, 1982; Fonagy, 1999). To relate this

concept to Winnicott's idea of the False Self, the baby takes on the mother's *gestures* and makes them her own and this forms a basis of the making of the self" (2004; p. 147; emphasis added).

Paraphrasing Winnicott (1965), Orbach (2006) further defined the "false body" as: "a body that had adapted, that had created itself in the absence of a relation to a potential or 'true' body...a body whose existence was so fragile that it came alive only in response to the recovery from impingement" (p. 99). In other words, Orbach conceptualized her patients suffering with such "false body" constellations as, essentially, unable to feel a sense of physical vitality or aliveness as separate from a relatively constant cycle involving others' physical impingements upon them. Carefully noting the developmental precursors of such a constellation, Orbach elaborated broader cultural sanctions and pressures, especially upon women's bodies, as particularly problematic impingements for these vulnerable "false bodied" patients: "[T]he bodies we meet in therapy are bodies that have not been securely received in the first place...[C]ultural destabilizations then work on already insecurely attached bodies: bodies, which have embedded anxiety and disorganization in their origins" (2004; p. 147).

With regard to the treatment process with such "false bodies," Orbach (2006) has proposed that patients' bodily-related symptoms can often be understood as "a search on the part of the patient to create a body that is alive for her or him when there is [otherwise] an absence of a sense of body surety" (p. 89). As such, Orbach stipulated that it was one of therapists' essential roles to offer his or her body as an "auxiliary" (2004; p. 144): "Deconstructing those defenses is often contingent upon *making our bodies available to our patients*, in the therapeutic relationship in a way akin to the way

we make our psyches available” (2004; p. 148; emphasis added). Orbach (2006) has summarized the expectable therapeutic process with these patients as involving:

“the intermittent experience that there is a body in the room that is available for use and engagement—the therapist’s body. By sharing the therapist’s body and internalizing the desire of the therapist for the patient to have a body, and through the therapist’s acceptance and offer of a body, the patient, in time, and slowly, begins to develop an internal body that is alive and of use to herself” (2006; p. 101-102).

It is in this context of clinical work with “false bodies” that Orbach’s (2000; 2004; 2006) concept of “body countertransference”—defined broadly as “the therapist’s awareness of their own body, of sensations, images, impulses, feelings and fantasies that offer a link to the client’s process and the intersubjective field” (Orbach & Carroll, 2006; p. 64)—becomes especially important. For the most part, Orbach (2004) conceptualized “body countertransferences” in terms of Racker’s (1968) familiar categories of *concordant* and *complementary* countertransferences, arguing that such instances could usually be categorized into one of the following attachment-friendly descriptors: 1) the “way in which the experience of distress...is conveyed to the analyst” (i.e., concordant), or 2) “a demand for some provision” (i.e., complementary) (2004; p. 145).

Orbach (2000; 2004; 2006) has provided many examples of “body countertransferences” including the relatively common tendency in therapists to “nod off”—which Orbach conceptualized as often a type of *concordant* body countertransference that characterized certain patients’ need to “bore” the therapist out of a fear of more intimate engagement. In another example, Orbach described an

occasion in which she “involuntarily” (2004; p. 141) stuck-out her tongue behind the back of an especially attractive female patient, permitting her (the therapist) to eventually become more aware of “an overwhelming *physical* sensation of disgust” (2004; p. 145; emphasis added). This ultimately allowed her to better empathize with and understand this patient’s own still-hidden feelings of “body hatred” rooted in her (the patient’s) early history of growing up with a “deformed” brother (2004; p. 145).

Orbach (2000; 2004; 2006) has also offered a range of clinical vignettes in which she (the analyst) has come to feel remarkably “content” at a physical level—“the sense that my body was so absolutely content that it was like a purring pussy cat” (2006; p. 102)—with certain patients. Orbach characterized her understanding of this more *complementary* body countertransference as follows:

“Although [the patient] cannot give this body to herself because that would feel inauthentic, you can’t build a good body on rotten foundations, she can invoke in me, in our relationship, a body with which to identify which will, by alerting me to its appearance, show us both the necessity of her being able to accept the disturbed and distressed body she has” (2004; p. 145).

Especially important to the current investigation of more extreme manifestations of therapists’ clinically-relevant somatic sensations, Orbach (2004; 2006) has also proposed an additional category of “body countertransference”—which she has at times referred to as “wildcat body countertransference” (2004; p. 149; 2006; p. 99)—characterizing these particular instances as reflecting “straightforward communication” (2004; p. 145) on the part of patients regarding body-related trauma: “this patient isn’t conveying the idea that her body per se is a problem to her but that something has been done to or with it or it has been involved in something traumatic

that has been dissociated until that time” (2004; pp. 145-146). This additional category of “body countertransference,” according to Orbach, often coincided with especially dramatic examples of spontaneous, idiosyncratic physical sensations in the bodies of therapists—for example, a supervisee of Orbach’s reportedly “smelt fire outside her consulting room” just prior to a patient’s initial revelations of childhood sexual abuse by an uncle (2004; p. 141). It is this version of Orbach’s “body countertransference” that is, perhaps, most pertinent to my own investigation.

A particularly striking example of this “wildcat” variety of body countertransference has been described by Orbach (2006) in case material that illustrates her work with Colette, a 38-year-old female patient with a twenty-year history of bulimia. Orbach reported that during her initial work with Collette, she (the analyst) was especially aware of feeling “dowdy and shabby” in relation to her attractive patient, which she compared to her more typical stance: “it was rare for me in the consulting room, to feel I inhabited such a disagreeable, disgruntled body myself” (p. 99). After detailing the many ways in which Collette’s early history (i.e., insecure attachment to a narcissistically preoccupied mother) may have precipitated a “false body” constellation (p. 101) in Collette, Orbach reported the following experience, which was strikingly reminiscent of my own personal experience that led to the formulation of the present investigation:

“[A]fter one session, I went to write my notes and experienced *intense burning across my skin*. I felt I was on fire. At the next session, Collette recounted, for the first time, the story of a baby brother, younger than two years, who had fallen from a shelf above the stove onto the range and burned to death while in the care of his paternal grandparents and their servants in Egypt” (p. 103; emphasis added).

Although this event took place before her patient, Collette, had even been born, Orbach (2006) marveled at the way in which: “Colette had found a way to *convey viscerally* to me a bodily experience that had formed an aspect of her physical sense of self” (p. 103; emphasis added). Orbach continued:

“[T]he burning body, which I conjectured also emanated from her mother and which I had picked up in my body countertransference...this *burning sensation* seemed to me to encode a sense of grief, horror, agony, shame, fear, and hesitation that may have lain inside her mother’s body and that her mother brought to her physical mothering of Colette” (p. 103; emphasis added).

Orbach (2006) ultimately conceptualized Colette’s bulimia symptoms as an effective repetition of her “false-body” need for regular “impingements” in order to feel more alive, and credited her own clinical abilities related to *receiving* and *embodying* “aspects of the body-to-body relational mismatching that had created such problems at a corporeal level for Colette” (p. 100) as particularly mutative in this case.

Although Orbach (2000; 2004; 2006) has often suggested within her extensive writing on somatosensory transmission phenomena that patients may, under certain circumstances, “directly communicate” (2004; p. 145) certain *physical* aspects of their subjective *bodily* experiences to therapists, Orbach’s work, nonetheless, does not offer speculation as to the underlying physical or physiological mechanisms involved in these dramatic clinical transactions. For example, in relation to an earlier-mentioned clinical vignette involving a supervisee who “smelt fire” (2004; p. 141) at a particularly “alarming” moment in her work with a patient, Orbach wrote only that “the patient

conveyed something, and we aren't sure how this is done, to the therapist" (2004; p. 145).

Where, I would argue, Orbach has indeed expanded our field's current conceptualizations of somatosensory transmission phenomena—beyond her useful elaboration of the relevance of patients' "false body" constellations emerging out of insecure attachment relationships—has been through her suggestions with regard to the potential role of "trauma" in facilitating these dramatic clinical events (i.e., "wildcat body countertransference"). In these moments, Orbach proposed that patients are attempting to convey "that something has been done to [her body] or with it or it has been involved in something *traumatic* that has been *dissociated* until that time" (2004; p. 145-146; emphasis added). However, close reading of most of Orbach's clinical illustrations reveals a decided emphasis upon *early* attachment-related "trauma"—as, for example, was the case with Collette. In other words, while trauma would seem to have played a significant role in this case (i.e., the sudden death of Collette's infant brother in the years before she was born), Orbach's clinical formulations vis-à-vis somatosensory transmissions have emphasized how this earlier trauma was *transmitted* via Collette's early insecure attachment relationship with her traumatized mother.

It was sometimes confusing attempting to determine with precision how Orbach was proposing that psychotherapists should actually work with their "body countertransferences." On the one hand, for example, Orbach clearly emphasized the need for clinicians to appreciate patients' subjective bodily experiences—by not "slipping into one or another mode of translation" (2006; p. 95). However, she has also

written about the importance of such “translations”—as, for example, when she described the climactic throes of her work with Collette:

“I could not know, but by using *the words* anguish, shame, lament, hesitant, and fearful to talk about the mother’s subjectivity and the physical ambience of Colette’s childhood, I was able to *yank myself away from the contaminating aspects of the self-hating body countertransference* I had taken on” (2006; p. 104; emphasis added).

In other words, I would argue that Orbach’s writing reflects a subtle but, perhaps, important contradiction relevant to my efforts to formulate a more coherent conceptualization of somatosensory transmissions. On the one hand, Orbach has generally written about therapists’ experiences of “body countertransference” as relatively normative and facilitative to the psychotherapy process: “[D]rawing upon the countertransferential bodily experience of the analyst during specific therapies enables a fuller understanding of [the patient’s] bodily development” (p. 89). However, as mentioned above, Orbach has also appeared at other times to be describing an approach to countertransference more similar to Wrye and Welles (1994; Welles & Wrye, 1991), in which certain instances of “body countertransference” may signal the *breakdown* of therapists’ primary therapeutic goals, which expressly include, according to Orbach, making one’s body available to patients as an “auxiliary” (2004; p. 144).

A related and also somewhat confusing aspect of assessing Orbach’s perspectives on somatosensory transmissions has to do with the question of where to place her work along the (admittedly oversimplified) continuum of “one-person” versus “two-person” conceptual frames. There are, in fact, many instances where Orbach’s conceptual terminology is especially amenable to “two-person” conceptualizations: her

explicit interest in the clinically-relevant “body subjectivities” of *both* patients and therapists, her emphasis on the “body-to-body” communications inherent to her clinical concept of “corporeal intersubjectivity” (2006; p. 97), her conceptualization of patients’ (and presumably therapists’) bodies as fundamentally “relational” (2006; p. 96), and her commendable willingness to lend support to each of her conceptualizations in the form of detailed disclosures regarding her own bodily experiences during clinical work.

However, in other important ways, Orbach’s theoretical perspectives and clinical approaches would appear to be more consistent with relatively “one-person” object relational models. For example, Orbach has, I believe, offered a relatively narrow conceptualization of bodily-based interactions between patients and therapists through her exclusive emphasis upon the foundational roles of parent-infant relationships to our patients’ (and, presumably, our own) bodily-based identities. Consider, for example, Orbach’s (2006b) comments on the *early* origins of ‘the body’ in one of her most recent publications on this subject:

“[T]he body is...a relational outcome of the intersubjective field *of the carer and the baby* just as much as the mind is. Winnicott frequently tells us that ‘there is no such thing as the baby. Whenever you see a baby you see a mother and baby pair.’ I would like to extend this idea to say there is no such thing as a body. Whenever you see a body, you see a body that has been internalized in the context of a relationship with another body” (p. 68-69; emphasis added).

Furthermore, at a more clinical level, Orbach has often emphasized the role of therapists as important attachment figures and, in this context, the need for therapists to be particularly aware of their relationships to their own bodies (so as not to inadvertently “transmit” dissociated aspects of one’s own bodily experiences to patients). This is also consistent, in fact, with one of her overarching recommendations:

that therapists provide an “auxiliary” (2004; p. 144) body for patients to utilize, as they may need. Not surprisingly, from this perspective, Orbach has tended to emphasize that which has been *evoked by the patient* within the body of the therapist throughout her clinical illustrations of “body countertransference.”

Therefore, with some reservations, I have included Orbach’s particular contributions to my investigation of somatosensory transmission phenomena along with those of other object relationalists who, I would argue, have construed the psychotherapy process in a somewhat less-than-“thoroughgoing two-person” manner (Wachtel, 2008)—that is, through their emphasis on a relatively idealized maternal or attachment figure whose body is made available to patients, and whose own bodily responses can be understood as having simply been *evoked* by patients. I believe that this approach has led to a lack of sufficient interest in therapists’ own potential contributions to the psychotherapy process—obscuring, in particular, the potentially “two-person” nature and meaning(s) of certain somatosensory transmissions.

Although primarily focused on potential theoretical integrations of self psychological and contemporary Kleinian frameworks—Sands (1997a; 1997b; 1998) has also published several articles relevant to the clinical category of somatosensory transmissions. Of particular interest to this investigation are Sands’ attempts to more precisely define this clinical phenomenon—noting “the intensely *visceral* quality of the analyst’s experience” (1997a; p. 656) in certain moments. Sands has, furthermore, carefully distinguished this type of clinical episode—which she labeled “experiencing-through-the-other” (1997b; p. 691)—from other clinical mechanisms (e.g., “empathic immersion,” “affective resonance,” “reciprocal mutual influence”) by arguing that these clinical episodes go “beyond empathic attunement in that the analyst not only

empathizes with and resonates affectively with the patient's experience but *actually experiences it* to such an extent that she *viscerally* 'gets' something about the patient that could not otherwise have been apprehended" (1997a; emphasis added; p. 666).

Furthermore, Sands (1997b) stated:

"I am trying to describe a different phenomenon, in which an area of experience is walled off in the patient and in which neither patient nor analyst is consciously aware of the patient's experience. Instead *the experience is in the analyst*" (p. 696; italics from original).

Sands' work in this area also implicitly lent support to one of my own central contentions in conducting this dissertation project—namely, that the current state of psychoanalytic theorizing is, at least partially, responsible for our discipline's lack of better understandings and clinical conceptualizations of this important category of clinical phenomena. Ironically, however, what Sands' efforts with regard to attempting to more clearly conceptualize these clinical phenomena may have more clearly illustrated are the considerable obstacles that remain to better theorizing in this area—in particular, the tendency for certain theoretical discussions within psychoanalysis to become bogged-down by inter-orientation "turf wars" at the ultimate expense of providing better, more useful clinical conceptualizations.

Noting her particular dissatisfaction with existing self psychological conceptualizations for encompassing this particularly "visceral" range of clinical communication, Sands' (1997a) attempted to formulate what she called an "experience-near" approach to the contemporary Kleinian concept of projective-identification, which Sands argued had, thus far, offered the most hope of capturing the range of clinical phenomena involving "intensely visceral" sensations of "being 'taken over' by the

patient's unconscious experience and having no choice but to 'live' it" (1997a; p. 656). Sands also compared these particular clinical moments to an "emotional exchange of bodily fluids" (1997a; p. 663).

Using the "experience near" language of self psychology, Sands (1997a; 1997b; 1998) conceptualized "experiencing-through-the-other" (1997b; p. 691) as a previously unidentified self-object need (Kohut, 1984)—in other words, a basic human developmental objective:

"to communicate unformulated affective experiences through the other's experience, in order to explore vicariously and integrate intolerable aspects of self. The longed-for self-object response is to have one's communication *viscerally* received, contained, 'lived through,' symbolized, and given back in such a way that one knows that the other has "gotten" it *from the inside out*" (1997b; p. 699; emphasis added).

Despite Sands' (1997a; 1997b; 1998) refreshing clarity with regard to articulating and defining this underappreciated and insufficiently understood category of clinical phenomena—which Sands (1995), herself, called "neglected or shunned aspects of the countertransference field"—Sands failed to offer compelling clinical representations of these phenomena, which, I believe, had the impact of undermining her sound theoretical reasoning. Across three articles written on this clinical subject, Sands included only two relevant clinical vignettes. Furthermore, similar to the clinical material provided by Wrye and Welles (1989; 1994; Welles & Wrye, 1991), Sands' clinical vignettes were ultimately of questionable value, at least to my investigation, in terms of documenting *actual* physical or physiological experiences of therapists in relation to patients.

In the most elaborated clinical illustration of her conceptual ideas vis-à-vis “experiencing-through-the-other,” Sands (1997a) described her work with an adult male patient who aroused in her a relatively “persistent feeling that I was never ‘doing enough’” (p. 652). Sands reported that by further attending to and wondering about her experience in relation to this patient, she became aware of a particularly “visceral” sensation: “I became aware of a ‘pull,’ like something tugging on the center of my chest. As this *bodily experience* became more conscious, I realized that I had in fact felt this ‘pull’ from the first moment I met him” (p. 653; emphasis added). Sands described the process by which she decided to use her awareness of these “visceral” sensations clinically by ultimately disclosing her experience to her patient: “I am feeling a strong pull to do something, and yet I’m not sure what there is to do” (p. 653). Thereafter, according to Sands, her patient gradually began to increasingly express his own experience of being “pulled”—at first, in relation to his therapist (i.e., resentful that he felt he had to shoulder “all the responsibility for this relationship”; p. 653), and, eventually, in relation to his “depressed and self-doubting” (p. 653) mother who the patient felt he had always had to reassure. Sands explained that:

“the patient and I succeeded in co-creating *in me* a state in which I could ‘get’ something *viscerally* about the pathogenic interactions of his childhood that he unconsciously needed me to understand. Together we unconsciously created a *physical* experience of ‘pull’ in me so that I could better grasp his lifelong experience of feeling ‘pulled’” (p. 653-4; emphasis added).

Sands later elaborated (1997b) that “my patient needed me to ‘get’ his experience on a deeper, more dramatic affective and *visceral* level, because this was the level he was experiencing it on” (p. 703; emphasis added). Sands added that “the most striking

evidence to me that we had reached a new, more fundamental level of understanding was that, after this series of interchanges, for the first time since the beginning of the therapy, my own sense of ‘pull’ completely disappeared” (p. 653).

In another relevant clinical vignette, Sands (1997b) described her reaction to a patient:

“who reported to me verbatim the contents of a note that she had just received from her bizarrely cruel mother, and she told me in such a way that I felt *kicked in the stomach* and *sick* with horror, while she described herself as feeling ‘fogged in’ and having no feelings whatsoever” (p. 701; emphasis added).

Further illustrating her contentions regarding the self-object needs that manifest in clinical instances of “experiencing-through-the-other,” Sands highlighted how this patient asked her (the therapist) what she (the therapist) had felt while listening to the letter, explaining that, in asking her question, she (the patient) “wanted to get my feelings back” (p. 701).

While Sands’ (1997a; 1997b) clinical examples may have nicely illustrated her main theoretical contentions, their closer inspection do raise at least some uncertainty, to my mind, regarding how *visceral*, in fact, were the experiences of the therapist. In other words, were these indeed *physical* sensations (e.g., of being “pulled” or “kicked in the stomach”) felt by Sands in these clinical moments or, might her descriptions reflect “experience-near” metaphorical translations of particularly intense clinical episodes? After all, in the same article Sands emphasized the important role of clinical metaphors: “They [metaphors] are what psychological theory is made of, what we take-in during our training, and what become the *bones, muscle, and tissue* of our practitioner selves.

Metaphors determine how we hold our patients and how we hold ourselves” (1997a; p. 663; emphasis added).

Like Orbach (1986; 1995; 2000; 2004; 2006; Orbach & Carroll, 2006), Sands’ (1997a, 1997b; 1998) writing on this subject does not shed much light on the physiological or neurophysiological mechanisms that may be involved in such “visceral” clinical transactions. On the contrary, in fact, as was noted earlier, Sands stated that instances of “experiencing-through-the-other” occurred “in some mysterious way *that we cannot begin to comprehend scientifically*” (1997a; p. 653; emphasis added).

In terms of when clinicians might expect episodes of “experiencing-through-the-other” to manifest in psychotherapy, Sands’ (1997b), once again, emphasized her theoretical contention that such instances reflected “a healthy, developmental need that could be traced to the very beginnings of life” (1997b; p. 699). Furthermore, she stated that this was “a need that remains with us throughout life—although, like all self-object needs, it becomes less urgent and primitive with maturity” (p. 699).

However, Sands has also acknowledged that this “basic human developmental need...remains more pervasive and intense in some of us than in others” (1997b; p. 665). As such, it can be said that Sands has formulated, with greater clarity and specificity than most other theorists, the potential role of later-life trauma in facilitating these types of clinical episodes (p. 699). Sands, for example, clearly differentiated between the following multiple etiologies of such episodes of “experiencing-through-the-other” when she argued that clinical manifestations of this unmet self-object need “appears in its most dramatic form either in a child who has not yet developed the capacity to regulate his feelings states and who therefore needs to have his experience received and deciphered by the “mother,” or, *in a traumatized patient* who cannot

tolerate certain aspects of his psyche and who consequently needs to have those parts of himself received, lived through, and interpreted by a therapist” (1997b; p. 694; emphasis added). Sands further elaborated this second clinical context in which patients might be expected to utilize “experiencing-through-the-other” with their therapist: “because they are seeking to bring into the analytic relationship affective experiences that have not been symbolically encoded and cannot yet be verbally communicated. The material may remain un-symbolized because it was encoded under traumatic conditions” (1997b; p. 702). Such experiences, according to Sands, remained in “somatosensory or iconic form,” and, therefore, “must be communicated in like manner” (1997b; p. 702).

In terms of how best to work clinically with these episodes, Sands (1997a; 1997b; 1998) seems to have been emphasizing that clinicians needed first-and-foremost to *recognize* this unique category of clinical phenomena—which, Sands argued, required a conceptual framework that was specific enough to identify, distinguish, and “hold” (1997a; p. 663) these phenomena in clinicians’ consciousness, while also being “experience-near” (1997a; p. 652) enough to facilitate clinicians’ more empathic responses to these “mysterious” (1997a; p. 653) clinical moments.

Sands’ (1997a; 1997b; 1998) general perspective on somatosensory transmissions—involving an elaboration of Bion’s (1959) “interpersonalized” formulation of projective identification as reflective of a basic self-object need that is achieved (or not) in relation to important others—can be characterized as the most explicitly “two-person” of all of the object relations theorists, at least at a conceptual level, if not in actual clinical practice. The “two-person” sensibility of Sands’ approach comes through clearly in her acknowledgement that:

“[P]atient and analyst *co-create* the experience of projective identification through a complicated and multilayered series of *reciprocal interactions*. Each experiencing-through-the-other sequence will unfold in a particular way *given the unique personalities of the participants and the unique chemistry of their interaction*” (1997b; p. 703; emphasis added).

Furthermore, Sands maintained that instances of “experiencing-through-the-other” constituted “a self-object experience for *both patient and analyst*. This particular kind of self-object experience—in part because of its *mutuality*—lies at the deepest reaches of empathy” (1997a; p. 666; emphasis added).

Likewise, I would argue that Sands’ (1997a; 1997b; 1998) relatively specific qualifications regarding the potential influences of patients’ (and presumably, therapists’) later-life traumata in facilitating such “visceral communications” implicitly expands clinicians’ range of contextual frames beyond earlier “one-person” approaches that have tended to either dismiss or diminish the potential contributions of therapists to these somatosensory transmissions by conceptualizing their roles as either “blank slates” or “idealized” maternal objects, attachment figures, or as “containers,” a la Bion. In other words, from Sands’ perspective—and others which acknowledge the potential role of later-life trauma on psychological functioning or, more specifically, on facilitating clinical instances of somatosensory transmission—one can more easily envision the utility of a broader range of contextual frames and clinical metaphors within which to conduct and conceptualize the clinical process (e.g., *not* simply in terms of an idealized, reparative “mother-infant” type relationship).

Despite these idiomatic allowances, however, in the direction of a more “two-person” conceptual framework, it was in Sands’ clinical illustration of her ideas that I

felt her “two-person” approach began to ring somewhat hollow. Firstly, Sands’ (1997a; 1997b; 1998) insistence upon understanding “experiencing-through-the-other” in the self psychological idiom of unmet self-object needs (Kohut, 1984) tends to isolate the underlying impetus and intention for such clinical moments *within* patients (i.e., *past* unmet needs). The implications of this subtle-but-important ‘leaning’ in the direction of more “one-person” conceptualizations of the psychotherapy process was evident, I would argue, in Sands’ failure to provide more compelling clinical examples—especially, in terms of placing a sufficient emphasis upon therapists’ potential contributions to the clinical circumstances that might facilitate “experiencing-through-the-other” moments in psychotherapy (e.g., explicit consideration of therapists’ own history, involving, perhaps, his or her own unmet self-object needs, etc.).

The potential for somatosensory transmission phenomena to both arouse and expose tensions among theorist-clinicians along divisive theoretical lines—such as, between “one-person” and “two-person” conceptual frameworks—was especially on display in the exchange of ideas that followed Sands’ (1997a) original publication (Bacal, 1997; Crastnopol, 1997; Stolorow et al., 1998; Sands, 1998; Stolorow et al., 2001). These articles focused almost exclusively on the narrower subject of clinical nomenclature (i.e., “projective identification,” “experiencing-through-the-other,” “empathic attunement,” etc.), as well as each of these mechanism’s specific historical and metapsychological roots (i.e., “baggage”)—at the expense, I would argue, of providing more substantive examination or explication of the clinical category at the root of this discussion. Crastnopol (1997), for example, argued that differing conceptualizations of the “self” and “psyche” by object relations versus self psychological theorists rendered projective identification—even as Sands (1997a) had

elaborated its self-object characteristics in her formulation of “experiencing-through-the-other”—“incompatible with self psychology” (p. 686). Stolorow et al. (1998) added that Sands’ proposed integration of projective identification and self psychology amounted to the positing of “a unidirectional influence system [that] does violence to the nature of the analytic relationship as a dynamic system” (p. 720-721) and, furthermore, imposed upon analysts the impossible expectation that they be able to assume a “God’s-eye view” (p. 721) in their interpretation of the particular influences active at any given moment within such a dynamic system—needless to say, an impossible proposition for Stolorow et al.’s intersubjectivity theory<sup>9</sup>.

The most substantive critique of Sands’ (1997a) ideas, at least insofar as the particular *clinical* aspects of Sands’ “experiencing-through-the-other” concept were concerned, was Bacal’s (1997) article that acknowledged the importance of more clearly identifying these clinical phenomena, which he described as:

“forms of attunement [that] entail the analyst’s being in touch with the patient’s self-states by being in touch with her own self-states, as they are affected and sometimes strikingly altered in certain ways—even *somatically*—by those of the patient” (p. 670; emphasis added).

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<sup>9</sup> Interestingly, in response to Sands’ (1997a) proposals regarding “experiencing-through-the-other,” Stolorow et al. (1998) stated a preference for using the term “empathic-introspective inquiry” to categorize this range of “visceral” clinical phenomena. Stolorow et al., however, defined this term less specifically, I believe, as “a process in which the analyst searches his or her own ‘world of experience’ for potential analogues of what the patient is presenting” (p. 720). Stolorow et al. (1998) referred readers to their own earlier writings on this subject (see Stolorow et al., 1992; Ch. 3) for more *clinical* illustrations of these phenomena. The clear implication of this “suggested reading” by Stolorow et al. (1998) was that they would be providing a *clinical* conceptualization that was not encumbered by what they saw as a problematic reliance upon projective identification. However, close reading of the text to which these writers referred readers (i.e., Stolorow et al. (1992); *Contexts of Being*, Ch. 3) reveals no such acknowledgment of visceral sensations on the part of therapists.

Despite these supportive acknowledgements, however—including his contention that such somatosensory transmissions occur more commonly than our field has yet acknowledged (p. 676)—Bacal ultimately argued that Sands' (1997a) proposal of a novel self-object need was unwarranted, stating that these clinical occurrences often had more to do with *therapists* being “variously receptive” vis-à-vis patients' “unconscious affects and ideas” (p. 677), rather than with the patient's particular self-object needs:

“when this sort of thing happens, our psychical distance from the patient has changed. There has been a shift in our usual empathic listening position to a position of resonance with, or immersion in, the patient's subjective experience” (p. 680).

Bacal argued furthermore that in the case of Sands' (1997a) “visceral” sensations of feeling “pulled” with a particular male patient:

“[s]he had moved so close that she was unknowingly *immersed* in certain sectors of his experience, *rather than understanding* him in the usual sense that we mean when we speak of vicarious introspection. In effect *his subjectivity had become her subjectivity*” (p. 680; emphasis added).

Bacal (1997) went on to articulate a vision for what he believed would be a more therapeutically appropriate “psychical distance” between analysts and patients, in order to avoid such somatosensory transmissions: “if the analyst is in touch with his own self-states as he is tuning in to the patient's self-states, the analyst will hear the “other” in the patient's experience as it affects the analyst's experience” (p. 680).

Bacal (1997), therefore, would seem to have been in agreement with the “countertransference” perspectives espoused by Wrye and Welles (1989; 1994; Welles

& Wrye, 1991; Wrye, 1993; 1996), when he characterized Sands' (1997a) documentation of "experiencing-through-the-other" as reflecting less-than-ideal "empathic attunement" or less-than-appropriate "psychical distance" vis-à-vis one's patients. What I find particularly remarkable, however, in Bacal's (1997) critique of Sands' (1997a) concept of "experiencing-through-the-other" is just how far, in fact, he went in the direction of supporting and elaborating Sands' statements regarding the "complex," "mutual," and "reciprocal" (p. 671) (i.e., "two-person") aspects of the psychotherapy exchange that, he seemed to agree (with Sands, 1997a), can often lead to clinical occurrences such as somatosensory transmissions, before ultimately espousing the belief that such occurrences essentially reflect failures of sustained 'empathic attunement' or more appropriate 'psychical distance' on the part of analysts' listening to patients' material.

In other words, Bacal's (1997) perspective with regard to somatosensory transmissions, I would argue, illustrated—somewhat more starkly than other such references I have reviewed—a fundamental contradiction apparent in most of the object relational references reviewed here that promotes, on the one hand, a "one-person" idealization of analysts' ability to somehow "hover" above the patient-therapist interaction engaging in sustained 'empathic attunement,' while also acknowledging the various, complex, multiply-determined, bidirectional, "two-person" forces that may inform patients' and therapists' moment-to-moment subjective experiences of the psychotherapy process.

To her credit, Sands (1997b), also took particular aim at the implicitly "one-person" thinking embedded in Bacal's suggestions:

“Self Psychology theory suggests that we can deliberately assume a particular vantage point, an empathic one, and implies that we really can determine what the patient’s experience is, as distinct from our own. I argue to the contrary—that when we are swept up in the patient’s experience, our sense of volition, as well as any certainty about *who is doing what to whom*, is thrown to the wind” (p. 696; emphasis added).

Once again, however, I cannot help but wish that Sands’ (1997a; 1997b) clinical material had gone somewhat further in elaborating the clinical implications and importance of formulating the actual “two-person” processes and meanings of particularly *visceral* exchanges between herself and her patients. This omission, I believe, has permitted Sands’ mostly theoretical arguments on this subject to be somewhat less persuasive and influential than they might otherwise have been. As such, Sands’ largely theoretical proposals with regard to somatosensory transmission phenomena were criticized and discounted on the basis of deeply entrenched theoretical divisions that complicated and, I believe, obscured Sands’ efforts to elaborate a clearer clinical conceptualization of somatosensory transmissions.

In addition to confirming my initial reluctance to relying upon the existing literatures’ various terminology for this category of clinical phenomena (e.g., “projective identification,” “experiencing-through-the-other,” “somatic countertransference,” etc.), the highly theoretical nature of divisions on display in this group of articles (Sands, 1997a; 1997b; 1998; Bacal, 1997; Crastnopol, 1997; Stolorow et al., 1998; 2001)—and, in particular, their marked lack of clinical illustrations—further reinforced my decision to focus this investigation in the clearest possible way on developing a clearer *clinical* conceptualization of somatosensory transmissions phenomena and elaborating its particular *clinical* implications. To this end, however, I am in complete agreement with

what I perceive to have been one of Sands' (1997a) original intentions—that is, proposing an “experience-near” conceptual framework that can serve to anchor clinicians' awareness and attention to these “neglected and shunned aspects of the countertransference field” (Sands, 1995). This, in fact, is one of the primary reasons I will be turning in the following chapter to recent neurophysiological research that I believe may be able to help “anchor” our field's growing awareness and acceptance of this category of clinical phenomena.

There are a few additional object relational references that I want to briefly mention that, although they do not add significantly to the range of conceptual frames or clinical issues already presented, should, nevertheless, be included in a comprehensive literature review of object relational perspectives on psychotherapy-related somatosensory transmissions. These include more recently published articles by Pozzi (2003), Zanocco et al. (2006), Alhanati (2004), Sonntag (2006), and Laine (2007).

The complementary contributions of Pozzi (2003) and Zanocco et al. (2006) reflect considerable overlaps with earlier writings by other clinician-theorists who have incorporated contemporary Kleinian and Bionian formulations of projective identification into their conceptualizations of clinically-relevant somatosensory transmission phenomena (DaSilva, 1990; Wrye & Welles, 1989; 1993; 1994; Welles & Wrye, 1991; Wrye, 1993; 1996; 1998; Sands, 1997a; 1997b; 1998). Pozzi (2003) and Zanocco et al. (2006) have each provided brief clinical vignettes illustrating instances of somatosensory transmissions in the context of psychotherapies with patients diagnosed with autistic-spectrum disorders—for example, the “uncomfortable sensations...in my

skin and body” described by Pozzi (2003; p. 1337) in her work with a 12-year-old boy with Asperger’s Syndrome.

The conceptual frameworks of both Pozzi (2003) and Zanocco et al. (2006) were built upon Tustin’s earlier work with autistic-spectrum patients and, in particular, Tustin’s (1984) concept of “adhesive identification”—a defense mechanism “by which the illusion of ‘primary union’ is maintained” (Pozzi, 2003; p. 1338)—which Tustin believed characterized the particular developmental arrest of autistic-spectrum patients *prior to* the achievement of a minimal sense of “separateness” necessary for utilizing projective identification (p. 1338). Pozzi argued that “body countertransferences” were, in fact, especially likely to occur when therapists worked with patients who had not achieved this “proper sense of separateness” (p. 1338); Pozzi formulated a clinical approach that focused on the use of “body language” to promote and reinforce these patients’ experiences of *bodily-based* coherence and separateness (p. 1338).

Zanocco et al. (2006) incorporated Stern’s (1985) concept of “amodal perception”—“an innate ability to receive information through one sensory mode and somehow translate it into another” (p. 146)—in formulating their understanding of the underlying clinical mechanisms that, under certain clinical circumstances, can result in “the analyst [being] exposed to *tactile, kinesthetic* and *visceral* representations rather than symbolic ones” (p. 152; emphasis added); Zanocco et al. labeled such clinical instances “sensory empathy” (p. 146).

Zanocco et al. (2006) evocatively described what they deemed to be the inherent challenges of conducting verbally-focused forms of psychotherapy with patients that tended to elicit (and require) “sensory empathy” from their analysts:

“The analyst’s words themselves would be quickly reduced to and assimilated as sensory events. The patient’s phantasy was that of physically incorporating the words of the analyst, as if they were a body part that he could keep in his mouth. They would become the ‘nipple-in-the-mouth of the baby,’ which ensured a stream of sensations, held the self together and allowed for the focused attention that produced dreams during sleep” (Zanocco et al., 2006; p. 151).

According to Zanocco et al., therefore, such patients “*cause* the analyst to act through *posture or gesture* rather than words” (p. 150; emphasis added). Consistent with Orbach (2000; 2003; 2004; 2006), Zanocco et al. proposed that an analyst working with these types of patients must function “as an extension of the patient’s self, as an auxiliary ego, such as that offered by the environment in the primary care of the infant” (p. 152).

Alhanati (2004), Sonntag (2006) and Laine (2007) have contributed several more clinically-elaborated illustrations of somatosensory transmission phenomena conceptualized, once again, through an object relational lens. Alhanati (2004), for example, described her clinical work with an adult female patient who, having been born prematurely, spent the first several months of her life in an incubator. In describing the clinical progression of this case, which ultimately focused on identifying the impacts of these earliest experiences, Alhanati referenced her adult patient’s particular sensitivities to bright lights and touch—and noted that her own [the analyst’s] sensitivities along these sensory dimensions had become heightened during work with this patient. Consistent with Pozzi (2003) and Zanocco (2006), as well as Orbach (2000; 2003; 2004; 2006), Alhanati (2004) conceptualized patients likely to elicit such “primitive bodily resonance” (p. 768) as “suffering from primitive disorders” (p. 760) indicative of “severe early attachment trauma” (p. 760).

Alhanati's (2004) conceptual contributions focused on elaborating these patients' particular deficits of "bodily integrity" (MacDougal, 1989) and corresponding existential fears of "dissolving into nothingness" (Grotstein, 1990). Alhanati further developed the ways that *Bionian* concepts had previously been understood as relevant to somatosensory transmissions (Wrye & Welles, 1989; DaSilva, 1990; Sands, 1997a) by describing such patients as "trapped in the grips of a state of mind that attacks all links and all meaning" (p. 759), and, therefore, having no alternatives but to "communicat[e]...about this disembodied state of nonbeing" (p. 761) via the countertransference.

Alhanati (2004) suggested that therapists would inevitably (and necessarily) experience certain concordant "primitive bodily resonance" (p. 768) with these patients because "our most basic feelings of being a nobody, nowhere get stimulated by our contact with [these] patients" (p. 760). She advised that, although clinical work with such patients could be "extremely uncomfortable in the countertransference" (p. 774),

"[t]hese kinds of patients *comprehend us through their bodies* first—not their minds—and *they need us to do the same*. They need us to smell them and drink them and taste them and touch them and hear the music in their voices first. They need us to be drunk with their experiences to such a degree that it feels *as if they are our own*" (p. 774; emphasis added).

Similarly, Sonntag (2006) provided a detailed clinical illustration involving what she called "a patient's and analyst's conscious and unconscious subjectivity that resides in *embodied states*" (p. 317; emphasis added) in the context of her work with a woman who, in addition to having "two open-heart surgeries by the time she was 1½ years old" (p. 323), had also been "sexually abused during a 4-year period, between the ages of 6

and 10, by her nanny and the nanny's boyfriends" (p. 323). Sonntag's patient reportedly presented herself to therapy at the age of 26, following a fifteen-year history of bulimia and manifesting many additional forms of chronic self-injurious behavior.

In spite of Sonntag's (2006) repeated references to the "intense *visceral* impact" (p. 320; emphasis added) of her work with this particular patient, the only elaborated reference to Sonntag's own "visceral" experiences or sensations came when describing her response to her patient's expression of suicidal ideation on one particular occasion:

"to speak would be to put myself at ease. I turned *to my body* to stabilize. I became aware of subtle behavior, and what startled me was that it was slightly self-injurious: biting the inside of my cheek, picking at the cuticles on my fingers, and tilting my head ever so slightly to feel the pain in my neck. *I was searching through the pain my own body to resonate with Olivia*" (p. 328; emphasis added).

Despite being the only instance of somatosensory transmission actually detailed in Sonntag's article, I want to highlight it as especially noteworthy in that, with this illustration, Sonntag would seem to have raised, for the first time, the novel clinical recommendation that therapists might *proactively* utilize their bodily experiences with certain patients to, otherwise, *avoid* entering into clinical *enactments*.

At a more conceptual level, Sonntag contributed a novel term to the extensive list of ways that somatosensory transmissions had previously been described; she characterized these "visceral" clinical transactions as "inter-objective" (p. 320)—emphasizing the more concrete (i.e., physical, bodily, etc.) and not-yet-symbolized aspects of this category of clinically-relevant "communication"—as compared to *intersubjective* forms of communication between patients and therapists.

Most recently, Laine (2007) has also disclosed several instances of somatosensory transmission that reportedly occurred at the beginning of her analytic career when she happened to be breastfeeding her first child (p. 1179)—“during some patients’ sessions, as a reaction to their material, my breasts began to leak” (p. 1179). One adult female patient, whose transference was described by Laine as “very oral” (p. 1179), apparently aroused this particular *physical* reaction on a regular basis. Laine explained that her own “primitive physical countertransference” (p. 1180) response to this patient led her to interpret the way in which this patient was utilizing analysis as a form of ‘*breastfeeding*’ (i.e., not thinking about the analysis at all between sessions, etc.; p. 1180). According to Laine, this interpretation resulted in her patient’s “recollection” (i.e., disclosing this information for the first time in her analysis) that she had, in fact, been breastfed by her mother for two additional years (i.e., until the age of 4) following the birth of her younger brother.

What was particularly novel about Laine’s (2007) clinical formulations regarding these instances of somatosensory transmission was her suggestion (and demonstration) that such physical manifestations of therapists’ bodily experiences could be amenable to analytic interpretation of *patients’* unconscious material. Laine, for example, noted that following her interpretation (i.e., regarding her patient’s use of the analysis as a form of ‘breastfeeding’)—and her patient’s subsequent associations and insights related to having been breastfed until the age of 4—her physical responses (i.e., “leaking breasts”; p. 1179) to her patient reportedly ceased (p. 1180).

As a way of summarizing the preceding object relational conceptualizations of somatosensory transmissions, I would argue that the most essential contribution (and organizing feature) of the preceding group of references has actually been expressed

rather succinctly by Orbach's (2003) contention that "there is no such thing as a body" (p. 17; emphasis added)—based, of course, on Winnicott's (1952) famous "relational" aphorism: "there is no such thing as a baby" (p. 99). In Orbach's (2006) words:

"the bodies we are bequeathed and create...have everything to do with the cultural and psychological disposition of the bodies of those who first gave us our bodies as well as, of course, our internalization of their experience of their bodies" (p. 92-93).

Therefore, in contrast to classical conceptualizations relevant to somatosensory transmissions (Jacobs, 1973; Thomson, 1980; Silverman, 1991; Agger, 1993), which tended to promote analysts' objectivity and neutrality in observing and interpreting manifestations of patients' unconscious material even when such "material" somehow manifested in analysts' *own* bodily experiences—object relational clinician-theorists have, through their adherence to "mother-infant" or "attachment-based" contextual metaphors for the psychotherapy process, constructed a relatively more interpersonalized notion of therapists' clinically-relevant physical, physiological, bodily-based experiences. Object relational perspectives on somatosensory transmissions can, therefore, be seen as relatively more "two-person" (compared to classical references reviewed earlier) by virtue of their inclusion of therapists' clinically relevant bodily experiences within an interpersonally-contextualized therapeutic framework. For object relational clinician-theorists, therefore, psychotherapists' responses to their patients—including certain spontaneous, idiosyncratic, physical sensations and physiological symptoms—can often best be understood in terms of relatively expectable "communicative" potentials that also characterize interactions between mothers and their infants.

The limitations, however, of object relational perspectives on somatosensory transmissions, I would argue, are also rather concisely captured within Orbach's (2003) body-centered homage to Winnicott's (1952) "baby" (i.e., "[t]here is no such thing as a body"; p. 17). In other words, object relational emphasis of "early" developmental phases and the particular "communicative" functions of certain bodily processes during these "early" phases has tended to highlight an overly narrow range of "relational" contexts—those corresponding with patients' "early," "primitive," "pre-oedipal" experiences with "maternal" objects or primary attachment figures. For this reason, I have argued that the preceding object relational perspectives relevant to somatosensory transmissions may actually be viewed as less than "thoroughgoing two-person" (Wachtel, 2008) for their tendencies: 1) to over-emphasize the relative contributions to psychopathology of "early," "primitive," "preoedipal" interpersonal experiences; 2) to promote clinicians' technical reliance upon a narrow range of "idealized" interactions designed to facilitate "corrective" reenactments of such "early," "primitive," "pre-oedipal" experiences; and, otherwise, 3) to narrowly constrain therapists' awareness of alternative relational contexts (i.e., other than those modeled after *mother-infant*-type relationships) and attention to additional interpersonal and systemic factors that may, in fact, be relevant to determining the various contributions and clinical significances of psychotherapy-related somatosensory transmissions.

Furthermore, I would characterize the preceding object relational approaches to somatosensory transmission phenomena as, essentially, built upon reified, relatively-static "one-person" psychological constructs—such as internalized objects or other forms of characterological "residue" associated with patients' "earliest" experiences—similar to those that were emphasized by classical references to somatosensory

transmission (i.e., where the emphasis has been on facilitating the “revelation” of patients’ unconscious, primary process “material” and bodily-held “secrets”; see Thomson, 1980). Therefore, object relational perspectives on somatosensory transmissions, like classical approaches, have also tended to posit the need for a relatively *objective* analyst charged with observing and interpreting evidence of certain reified psychological constructs pertaining to patients’ unconscious mental processes—even when such evidence manifests in the subjective bodily experiences *of therapists*.

The primary differences, therefore, between classical and object relational orientations, at least insofar as somatosensory transmission phenomena are concerned, appear to be the technical substitution by object relational clinician-theorists of a relatively idealized “maternal” therapist charged with facilitating the emergence of a narrowly-defined, contrived “early-attachment” transference—whereas classical analysts have, instead, promoted their technical neutrality (i.e., the analytic “blank screen”).

Additional evidence of underlying “one-person” theoretical biases within object relational perspectives on somatosensory transmissions, can be found, for example, in: 1) their disproportionate emphasis on determining the particular “early” and “internalized” (i.e., intrapsychic) contributions of patients to these clinical episodes that somehow enlist analysts’ physical sensations and physiological symptoms, with comparably limited consideration of interpersonal or systemic contexts and variables—beyond those narrowly-defined, relatively generic “relational” contexts assumed by mother-infant metaphors for the treatment situation, and 2) the views of several object relational clinician-theorists with regard to “countertransference”—including analysts’ clinically-relevant physical sensations and bodily symptoms—understood as *inhibitory*

of patients' achievement of a therapeutically-necessary "maternal" transferences (Wrye & Welles, 1989; 1993; 1994; Welles & Wrye, 1991; Bacal, 1997; Sonntag, 2006).

### *Contemporary Relational Psychoanalysis*

There are several important ways that contemporary relational conceptualizations of psychotherapy-related somatosensory transmissions might be expected to differ from those of the other psychoanalytic perspectives that have already been reviewed (i.e., classical and object relational).

First of all, in contrast to psychoanalytic orientations that prioritized analytic objectivity and technical neutrality, contemporary relational clinician-theorists have emphasized, for example, the "irreducible subjectivity" of the psychotherapist (Renik, 1993)—and, therefore, his or her inevitable influences upon patients and inherent biases with regard to the treatment process. Contemporary relational clinician-theorists have, therefore, also tended to promote therapists' more active awareness and attention to their own subjective experiences in relation to their patients (i.e., associations, perceptions, sensations, etc.) in order to inform therapists' better understanding of their patients' experiences and improve clinical decision-making (Hoffman, 1983; Renik, 1993; 1998; Ogden, 1996; Levinson, 2003).

This subtle resituating of the therapist within contemporary relational frameworks—that is, embedding the therapist within an *intersubjective* relationship with the patient—has also led to a more general reassessment of the therapeutic functions of therapists. For instance, as opposed to objectively and unilaterally symbolizing or interpreting the particular meanings of patients' symptoms, contemporary relational clinicians tend to conceptualize their role in terms of engaging

patients in a co-constructive meaning-making process that is unique to each individual treatment dyad (Sullivan, 1947; Spence, 1982; Stern, 1983; 1989; 1997; Mitchell, 1988; 1993; 1997; Aron, 1996; Hoffman, 2001).

One way that this reassessment of therapists' relative position and therapeutic functions vis-à-vis their patients may be of particular relevance to somatosensory transmission phenomena is in the extent to which contemporary relational clinician-theorists—based on their *intersubjectivist* moorings—have invested greater clinical resources in attending to and elaborating the roles of relatively subtle, nonverbal, bidirectional mechanisms by which patients and therapists constantly influence and regulate each other during the psychotherapy process.

This heightened awareness and attention within contemporary relational frameworks to what I consider the *micro*-regulatory process-level aspects of psychopathology and psychotherapy—as distinguished from a more exclusively *macro*-regulatory focus on, for example, early developmental contributions to characterological rigidities—is further bolstered by contemporary relationalists' thorough integration of neuroscience-based research in the area of psychological trauma. The influences of trauma-based research on contemporary relational theoretical and clinical conceptualizations can be felt, for example, in relationalists' increased emphasis on the role of dissociative mechanisms (Davies & Frawley, 1992; Bromberg, 1996; Bucci, 1997) and their incorporation of concepts such as “somatic memory” (van der Kolk, 1994) and related manifestations of clinically relevant “embodied” phenomena (MacDougal, 1989; Knoblauch, 2000; 2005; 2006; Leuzinger-Bohleber & Pfeifer, 2002; Chefetz & Bromberg, 2004; Reis, 2004).

I also want to highlight a “rebalancing” that often characterizes contemporary relational perspectives of what Mitchell (1984) perceived as the “developmental tilt” (p. 473) evident in earlier, especially object relational, psychoanalytic theorizing—that is, a bias that disproportionately emphasized patients’ early experiences and early relationships in analytic formulations of psychopathology and the therapeutic process at the relative expense of a more ‘balanced’ consideration of the impacts of later-life, ongoing, less-narrowly-conceived interpersonal and systemic factors, including, for example, patients’ *real* relationships with their therapists. Therefore, *in addition* to considering the potential early development-based contributions to patients’ later-life characterological-level rigidities and corresponding psychopathology—to which Orbach (2006) seemed to be referring when she identified the body as “relational” in terms of its having been “bequeathed to us...by those who first gave us our bodies” (p. 93)—contemporary relationalists have additionally tended to focus on the potential influences of patients’ more recent life experiences and relationships. This, I believe, constitutes yet another factor further reinforcing contemporary relationalists’ relatively increased attention to fluid, moment-to-moment, nonverbal, bidirectional, mutual-regulatory processes relevant to the psychotherapy process.

Given contemporary relational clinician-theorists’ relatively pervasive recognition of: 1) the ways that analysts’ might usefully attend to and utilize their own *subjective feeling states* to inform clinical decision-making; 2) the inevitable, implicit contributions of *both* participants to the *co-construction* of each unique psychotherapy dyad; and, in particular, 3) the important roles of “dissociated affect,” “somatic memory,” and certain “embodied” phenomena in conceptualizing psychopathology and the treatment process, I had expected to find greater acknowledgement of

somatosensory transmission phenomena among the writings of contemporary relational clinician-theorists. I also thought that, based on contemporary relationalists' *intersubjectivist* clinical framework, I might find particular clinical examples of somatosensory transmission discussed in rather distinct ways from other orientations—that is, as clinical experiences that were *subjectively-perceived* by therapists and, therefore, evaluated as clinically-relevant (or not) on the basis of *both* participants' potential contributions to the clinical interaction(s) that had involved such somatosensory-level exchanges.

In actuality, it was surprisingly difficult to identify contemporary relational clinician-theorists whose writing was directly relevant to somatosensory transmission phenomena. I will discuss some potential explanations for this in the summary of this section. I was, however, able to identify only two contemporary relational clinician-theorists who—while not depicting especially extreme or dramatic examples of somatosensory transmission phenomena—have, nevertheless, provided clinical conceptualizations and case material that are clearly relevant to psychotherapy-related somatosensory transmission phenomena. Furthermore, because the following contemporary relational perspectives tend to be anchored within a “two-person” metapsychology, my hope is that they may offer an auspicious starting place from which to eventually formulate a more “thoroughgoing two-person” (Wachtel, 2008) conceptualization of somatosensory transmission phenomena.

As the editor of two influential volumes devoted to ‘the body’ in contemporary relational psychoanalytic theorizing and clinical practice (Aron & Anderson, 1998; Anderson, 2007), Anderson (1998; 2009; see also Anderson & Gold, 2003) has often emphasized that “[psychotherapists] must give more attention to the nonverbal

domains of cognitive and emotional processing within the talking frame” (2009; p. 153). The origins of Anderson’s interests and considerable expertise in this area can be traced to her many years of working with patients suffering from neuromuscular disease and corresponding musculoskeletal pain symptoms. This work led Anderson and Gold (2003) to recognize, among other things, that “psychological and somatic processes are inseparable” (p. 537) and the extent to which patients’ “somatic symptoms are often related to a dissociation between cognition and affect” (p. 537).

With particular relevance to the current investigation, Anderson (1998; 2009; see also Anderson & Gold, 2003) has also often argued for greater “inclusion of the analyst’s bodily experience in the psychoanalytic process” (1998; p. 292)—which she has alternately referred to as therapists’ “countertransferential visceral somatic responses” (1998; p. 307) or “visceral countertransference” (personal communication). Most recently, Anderson (2009) has developed specific clinical training and supervisory techniques whose objectives are to facilitate “the use of the therapist’s bodily experience in the treatment relationship...focusing on sensory and visceral information” (p. 153); Anderson calls her approach “sensing the other,” which she has described as “a visceral and conceptual exploration of the therapist’s bodily experience” (2009; p. 153).

In general, Anderson’s (1998; 2009; see also Anderson & Gold, 2003) clinical approach exemplifies the characteristic broadening of the psychoanalytic psychotherapy frame common to contemporary relational perspectives—that is, through its attention to relatively fluid, nonverbal, bidirectional, affect-regulating mechanisms that are typically subsumed by the concept of *intersubjectivity*. Anderson’s particular contributions to contemporary relational perspectives in psychoanalysis involve her integration of this intersubjective, co-constructed clinical framework with a

deep understanding of “psychobiological” (1998; p. 292) processes and potentials that are often relevant to clinical work, especially in cases of psychological trauma.

Anderson’s clinical formulations, for example, incorporate neuroscience-based understandings of the affect-regulatory and dissociative mechanisms involved in trauma (Krystal, 1988; LeDoux, 1989, 1996; Herman, 1992; van der Kolk, 1994, 1996; Bromberg, 1998) and related cognitive, emotional, and physical sequelae of psychological trauma including “alexithymia” (Krystal, 1988), “affective paralysis” (Laub & Auerhahn, 1993) and “somatic memory” (van der Kolk, 1994).

Anderson’s (1998; 2003) clinical formulations are, perhaps, most consistent with Krystal’s (1988) proposals regarding relationships between alexithymia and psychological trauma—in which trauma, by definition, is seen as involving severely disregulated affective functioning, and, furthermore, that the relatively chronic experience of such disregulated affective functioning leads to symptoms including alexithymia (i.e., difficulty articulating one’s emotional experiences) and increased vulnerabilities to certain physical and physiological manifestations of stress such as chronic pain and various immuno-deficiencies (Krystal, 1988; MacDougal, 1989; van der Kolk, 1994; Maier et al., 1994). Anderson (1998) has also incorporated contemporary psychoanalytic perspectives on trauma, which conceive of psychological trauma in more experiential and “relational” terms—as, for example, “a disruption of the link between the ‘self’ and the ‘empathic other’” (p. 308; citing Laub & Auerhahn, 1993).

Taken together, Anderson’s perspective has been concisely described as a “relational, intersubjective approach that is attuned to the affective functioning of the analyst and the analysand” (1998; p. 292). One especially important aspect of this

primary focus on “affective functioning”—at least insofar as this investigation of somatosensory transmissions is concerned—is Anderson’s particular emphasis on “visceral” aspects of therapists’ “affective” experiences<sup>10</sup> and their relevance to the psychotherapy process.

In her clinical work with patients suffering from somatic complaints that may be rooted in or exacerbated by earlier trauma, Anderson (1998) has conceptualized analysts’ primary therapeutic function along the lines of other contemporary approaches to trauma (Krystal, 1988; MacDougal, 1989; Herman, 1992; van der Kolk, 1994; Bromberg, 1998)—that is, she has emphasized therapists’ roles in facilitating patients’ gradual “psychic elaboration” (Anderson, 1998; p. 293) of dissociated experiences by focusing initially upon patients’ more immediate, physical complaints and moving in a carefully-titrated manner toward re-exposure to (and integration of) formerly overwhelming emotional experiences within the relative safety of the treatment relationship.

As noted, Anderson’s (1998) perspective can be distinguished by the extent to which she has incorporated therapists’ “affective participation” including “[an] awareness of countertransferential visceral somatic responses” (p. 307), as both relatively expectable and, more importantly, “a mutative aspect of the analytic process” (p. 307). According to Anderson, therapists’ “affective functioning in the relational matrix, often at a somatic level” (p. 293) and, especially, their “ability to tolerate painful and violent affect” (p. 311) can serve as an essential preliminary step in helping patients to more fully elaborate and integrate once-overwhelming, dissociated experiences. In

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<sup>10</sup> In order to better anchor her particular clinical concerns with “visceral” manifestations of “affective” clinical phenomena, Anderson (1998) cited Krystal’s (1988) ‘information-processing model’ of affective functioning—which explicitly identified “an ‘expressive’ or *physiological* component” (Anderson, 1998; p. 317) inherent in all affective experiences.

other words, Anderson contends that certain patients may require first knowing that their therapist is resonating with their experience at a deeply-affective, even, visceral level, before being able to begin the gradual work of recognizing, tolerating, and symbolizing such dissociated affective memory fragments for themselves.

Anderson (1998) has written about therapists' dual roles as both "onlooker *and* experiencer" (p. 308; italics from original). She has also referred to her clinical approach as "the experiencing cure" (p. 310)—as compared to 'the talking cure' (Breuer, 1893)—in order to further emphasize the central therapeutic importance she perceives in patients and therapists not simply talking about, but actually *experiencing*, sometimes at primarily somatic or physiological levels of emotional functioning (Krystal, 1988), the formerly dissociated affects of patients' (as well as therapists') past histories. Not surprisingly, Anderson's (1998; 2003) writing has also suggested that therapists be able to monitor their own moment-to-moment, psychophysiological responses to their patients', as well as their own "dissociative tendencies" (1998; p. 312).

Given her extensive background in working with patients suffering from chronic musculoskeletal pain, Anderson's clinical depictions tend to display a particular sensitivity to the potential for patients' (and therapists') dissociated affective experiences to induce or exacerbate vulnerabilities to physical pain symptoms. For the purposes of this investigation, however, I will highlight the particular attention that Anderson has given to her own "visceral" responses within such clinical work.

Anderson (1998) described her analytic work over the course of many years with a middle-aged woman, named Ellen, whose presenting complaints included severe, chronic back pain secondary to Tension Myositis Syndrome (TMS), as well as a history

of failed relationships, about which Ellen claimed to have often been the victim of others' aggression. Primarily by presenting a series of Ellen's dreams reflecting various stages in the treatment, Anderson (1998) succinctly illustrated her patient's therapeutic progress—as she gradually moved from “severely somatizing” (p. 306) and relatively dissociated affective functioning, toward somatic relief and expanded awareness, even “ownership” (p. 303), of extremely painful emotional experiences that had marked her past.

Inclusion of some of Ellen's particularly graphic and disturbing dream content enabled Anderson (1998) to highlight two important aspects of this case: 1) the manner in which Ellen initially revealed through “calm, measured” (p. 296) depictions of “horrifying” (p. 296) dream content the relative severity of psychological trauma that lurked in her background, and 2) the way in which her own (Anderson's) “affective participation,” (p. 307) or “silent, but visceral, affective response” (p. 297), was powerfully engaged by Ellen's disturbing dreams and “absent affect” (p. 294).

Anderson, for example, described some of her initial reactions to working with Ellen this way:

“With Ellen, I guessed that a big challenge lay ahead, because her ‘absent affect’ was so striking *and* because my somatic response to her was so strong: while I waited eagerly, yet apprehensively, to hear what was to happen next, I would often feel a visceral sense of dread and notice an increase in my heart rate. At the same time, I would often be holding my breath, which I have learned is my unconscious somatic response when I do not want to experience fully my emotional reactions” (p. 294; italics from original).

In detailing her response to one of Ellen's early-stage dreams, which included initially pleasant images followed abruptly by depictions of a dead dog—a “boxer”—“rolled over

on its back; its chest cavity was open and deteriorated” (p. 296), Anderson (1998) wrote:

“When she finished telling this dream, she continued by giving more useful factual associations in her now familiar detached, objective manner. Meanwhile, the image of the damaged, dead boxer persisted for me as I cringed inside and wanted to clutch my chest protectively. I was wondering what had happened to the boxer, what could this signify? ... Why was euphoria followed by—by what?—by physical trauma to the boxer and what I experienced as a blank space where I had expected to hear an affective response” (p. 296).

Anderson went on to describe her gradual recognition and acceptance of what would become one of her primary therapeutic functions with Ellen: “I was to register affective responses when Ellen showed none” (p. 297). Anderson described this particular aspect of their process, which would continue over many years of the analysis, as “a long enactment” (p. 297). However, it is clear in reading Anderson’s clinical descriptions that she was, in fact, referring to an especially *productive* and, perhaps, *necessary* enactment—from which she and her patient ultimately emerged to find Ellen evidencing significantly reduced somatic complaints and greater conscious access to affectively-charged memories and experiences.

Anderson provided the following additional evidence to support her contentions that her own “visceral” responses to Ellen’s relatively dissociated affective functioning had been especially therapeutic in this case<sup>11</sup>:

“After reading my [Anderson’s] disclosures about *the pain I have experienced during the analysis*, Ellen said that she finally understood the dream about my

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<sup>11</sup> In what was the only example of a therapist’s self-disclosure of somatosensory transmission that I could find in the literature, Anderson (1998) allowed Ellen to read her manuscript, which included descriptions of their clinical work together. Thus, prompting Ellen’s response.

boxers. She conjectured that, early on, she must have been aware that I was reacting to “Her Story” and that she must have unconsciously needed me *to feel for her so that she could begin to tolerate feeling for herself*” (p. 308; emphasis added).

Anderson (1998) further distinguished her approach from most other clinician-theorists who have published articles in the area of somatosensory transmission phenomena by considering her own personal contributions to these types of clinical experiences. Anderson, for example, reported that by means of her work with Ellen:

“I have had to confront my family’s history of dissociated grief and rage and the ways it has contributed to my own dissociative tendencies, as well as the ways in which it has enabled me to be attuned to the affective functioning of my patients” (p. 312).

Like several other authors whose work I have reviewed (e.g., Agger, 1993; Sands, 1997), Anderson (1998) also utilized the term “affective” to mean, for example, her “countertransferential visceral, somatic” (p. 297) responses in her clinical work. As was noted earlier, this can sometimes be confusing especially insofar as I have been attempting to tease-out the more physical and physiological components of these clinical interactions. However, unlike other authors (Agger, 1993; Sands, 1997), Anderson clearly defined her intentions in focusing upon the “somatic” or “visceral” aspects of “affective functioning,” and by anchoring her work in Krystal’s (1988) ‘information processing model’ of “affective functioning,” which specifically highlighted an “‘expressive’ or physiological component” (p. 317) of affective experience.

Anderson’s (1998) conceptual integration of contemporary relational psychoanalysis and neuroscience-based research on psychological trauma has clearly

contributed to increased clinical understandings of the therapeutic potential of attending to psychobiologically-based, mutual-regulatory mechanisms—including, in particular, patients' *and* therapists' somatic-level, affective experiences in relation to the clinical process. However, Anderson's work in this area has not directly addressed the broader questions of: 1) *how* specific, clinically-relevant, physical symptoms and sensations might come to manifest in the subjective bodily experiences of therapists, or 2) *when* (i.e., under what particular clinical circumstances) therapists should anticipate that their own "countertransferential visceral, somatic responses" (p. 307) might prove especially relevant to the clinical process. I will, therefore, extrapolate what I perceive to be Anderson's positions on these matters, based on a review of her writings on this subject.

In terms of 'how' such somatic-level experiences may come to manifest in the bodies of therapists, my assumption is that Anderson (1998; 2003) would probably argue that certain patients—based on aspects of their presentation (e.g., alexithymia, somatizing tendencies secondary to a history of chronically-disregulated affective experiences) and traumatic histories—might be especially likely to induce an increased stress response in *most* therapists. Certain clinicians, therefore, whose own "dissociative tendencies" (p. 312) predispose them to having physical or physiologically-based symptoms in response to certain types of stress would then be more vulnerable to such physical or physiological dissociated affective responses. On this subject, Anderson, for example, noted that:

"While I have not become physically ill in reaction to the analytic work with Ellen, I have been actively engaged in sometimes painful deliberation about this

aspect of our work by reading and consulting with colleagues as I try to tolerate experiencing the ambiguities associated with our work” (1998; p. 300).

The clear implication, I believe, is that Anderson believed that she might have “become physically ill” (p. 300), or perhaps has become “physically ill” in the past with similar types of patients, and, therefore, has had to learn to protect both her patient and herself by adequately managing these clinical stressors in appropriate ways.

In terms of ‘when,’ or what clinical circumstances might be especially likely to arouse these types of reactions from therapists, Anderson (1998) rather clearly implicated Ellen’s “affective paralysis” (p. 297; see also, Laub & Auerhahn, 1993) by linking her own particularly visceral countertransferential responses to Ellen with her patient’s relative inability to effectively experience or express her emotions. Anderson, indeed, characterized this in the therapeutic terms of needing to function as the “experiencing I” (p. 297; see also, Laub & Auerhahn, 1993) for a patient who was not yet able to do so herself. Therefore, Anderson clearly suggested that in such cases—working with patients who exhibit evidence of dissociated affective functioning—therapists’ own affective functioning, including certain “physiological components” of affective functioning (Krystal, 1988), may be productively engaged.

More broadly, my assumption is that Anderson would contend that “the analyst’s affective participation” (p. 307) can generally be considered a relatively “mutative factor” (p. 307) in *most* psychotherapies. However, as I believe she highlighted in her work with Ellen, there are certain clinical circumstances—such as when working with patients evidencing particular alexithymic and, therefore, somatizing tendencies secondary to traumatic histories of severely dysregulated affective functioning—in which the “‘expressive’ or physiological component” (p. 317)

of affective functioning not only becomes relatively dissociated from other components of healthy affective functioning for the patient, but *also*, at least temporarily, for the *therapist* attempting to empathize with this particular patient's affective experience. At the very least, it is with these patients that Anderson argued that therapists' "ongoing ability to recognize, differentiate, tolerate, and symbolize painful, violent affect in the analytic process" (p. 309) may be especially important in facilitating patients' gradual emergence into fuller, more integrated affective functioning.

I think Anderson (1998) may also have been alluding to the potential importance of a "two-person" psychotherapeutic framework and its expanded range of clinically-relevant variables—such as, for example, the extent to which individual therapists might be more (or less) likely than others to experience "visceral countertransference" reactions—when she briefly reflected upon *her own* family's "history of dissociated grief and rage and the way it has contributed to *my own dissociative tendencies*" in the context of her work with Ellen (p. 312; emphasis added). However, because Anderson did not elaborate this point, it remains somewhat unclear to me if Anderson was, in fact, assigning some amount of *causal* relevance to her own "dissociative tendencies" in terms of potentially predisposing her to experiencing particularly visceral responses with her patient. Anderson's self-disclosure highlights, at the very least, her general willingness to consider such "two-person" contributions to the clinical process.

Anderson's (1998) approach, I believe, also represents an important advance compared to conceptualizations of somatosensory transmission phenomena that have, for example, focused more exclusively on the contributions of patients' early developmental experiences. This is not to say that Anderson would not take early

developmental experiences into consideration—as, perhaps, “setting the stage” for a patient’s predisposition to dissociated affective functioning or, in particular, somatizing tendencies under stress, which might, therefore, increase the propensity for “countertransferential visceral, somatic responses” (p. 297) by such a patient’s therapist. In her writing on treating patients with chronic pain, Anderson, in fact, has specifically cited the influences of psychoanalytic theorists who, consistent with object relationalists, have tended to emphasize early developmental factors as relevant to later-life pathological presentations (see “pain-proneness”; Grzesiak, 1992; based on Engel’s (1959) “pain-prone personalities”). However, by integrating and emphasizing a psychological trauma-based perspective that acknowledges the potential for overwhelming, affect-disregulating experiences to occur throughout the lifetime—thereby, *not* unduly emphasizing the importance of early developmental experiences in formulations of psychopathology and the psychotherapeutic process—I would argue that Anderson has constructed a relatively more “thoroughgoing two-person” (Wachtel, 2008) approach to this category of clinical phenomena.

Knoblauch (2000; 2005; 2006; Beebe et al., 2003; Beebe et al., 2005) has, perhaps more than any other contemporary relational clinician-theorist, grappled with conceptualizing both the breadth and potential therapeutic implications of intersubjective clinical phenomena—what he has sometimes referred to as “the musical edge of the therapeutic dialogue” (2000). Knoblauch’s particular interests and sensitivities with regard to studying nonverbal aspects of interaction and communication in psychotherapy have been informed by his collaborations with mother-infant researchers (Beebe et al., 2003; Beebe et al., 2005) and his careers as a jazz musician and musical theorist.

Whereas, Anderson's (1998; 2003) formulations with regard to somatosensory transmissions were largely anchored by her psychobiologically-based understandings of the *disintegrative* impacts of chronic affect-disregulation and psychological trauma, and, therefore, have tended to emphasize particular pathological implications of nonverbal mechanisms related to psychotherapy, especially those indicative of dissociated affective functioning, Knoblauch's work has focused somewhat more subtly, I would argue, on relatively universal (i.e., *not* necessarily pathological) nonverbal aspects of the psychotherapy interaction. He wrote, for example, that: "the musical edge is continuously present and rich with meaning, unconscious and conscious, in all analytic dyads" (2000; p. 52).

Knoblauch has also referred to this area of focus in his clinical theorizing in terms of promoting increased awareness of "Dionysian forces in psychoanalytic activity" (2006; p. 326). Knoblauch defined "Dionysian" aspects of analysts' subjective activities, as analysts' awareness of subtle, nonverbal, "rhythmic" aspects of the interconnectedness that characterize relationships between patients and therapists—rather than focusing exclusively on constructing (or de-constructing) meaning through symbolization processes (i.e., clinical or diagnostic formulations, interpretations, etc.). Knoblauch explained: "the Dionysian sees form as an illusion that separates things and individuals and hides the rhythmic movement that connects and reconnects all things" (p. 327-328). Knoblauch added that analytic 'listening' with a "Dionysian ear" offers the potential of further enhancing clinicians' abilities to 'hear' "the significance of affective communications carried on nonverbal registers of tone, rhythm, and embodied gesture and sensation *by the analyst as well as by the analysand* for recognizing and responding to unconscious meaning" (p. 333; emphasis added).

Importantly, Knoblauch (2000; 2005; 2006) has also explicitly anchored his conceptual arguments within empirical findings from mother-infant observation and research. Knoblauch (2006), for example, emphasized Tronick's (1989; Tronick & Cohen, 1989) research findings that demonstrated:

“[T]he rhythmic timing of responses [between infants and their caregivers] can construct too much, too little, or a “good enough” amount of matching [as measured by] movement of pelves, heads, gazes, facial expression, voice intonations, and gestures to sustain an ongoing sense of relatedness...a response within a two-second window is sustaining whereby a pause of greater duration can create the uncertainty and concomitant affective states characteristic of rupture” (Knoblauch, 2006; p. 331).

Noting, however, that such “matching” occurs, even for the most securely attached infant-caregiver dyads, “only one-third of the time” (p. 331), Knoblauch speculated that:

“[I]t may not be...states of attunement or misattunement that are constitutive of experiences of play versus shame [i.e., security versus insecurity], so much as the Dionysian rhythms of rupture and repair that can constitute “indications” of faintly conscious stimuli out of which analysts and analysands construct a sense of play or shame, a sense of connectedness or breakdown in relatedness to self or other” (p. 331; emphasis added).

While, perhaps, not as dramatic as other instances of psychotherapists' spontaneous, idiosyncratic, somatic-level involvement with their patients that I have reviewed, Knoblauch's (2000; 2005; 2006) clinical illustrations have explicitly highlighted clinically-relevant “micromoment-*embodied* communication” (2005; p. 807; emphasis added) between therapists and patients and, in particular, examined the

therapeutic implications of analysts' attention to "nonsymbolized *embodied* registers of interaction" (2006; p. 326; emphasis added) including "subtle shifts in face, posture, tone and rhythm of vocalization, and changes in state based on *somatic* or *kinesthetic* experience" (2006; p. 331-332; emphasis added). For these reasons, I believe Knoblauch's clinical conceptualizations may have relevance to my investigation of somatosensory transmission phenomena. Knoblauch (2000; 2005; 2006) has provided several clinical examples to illustrate how analysts' attention to such "embodied registers" may productively expand their awareness of patients' past and present subjective experiences.

Knoblauch (2000) described, for example, his work with a 32-year-old man, named Bob, whose childhood had included severe physical abuse by, among others, his father who was by the time of Bob's treatment deceased. Bob's primary presenting symptoms included anxiety regarding an inability to better control his anger, especially in relation to his employer. Bob worried that he would eventually lose his job as a result of his outbursts. Knoblauch noted that, in particular, his interpretive interventions—such as suggesting potential relationships between Bob's conflicts with his boss and his deeply-conflicted feelings over his father's abusive parenting—did not seem to be helping Bob to overcome his anger issues at work. Knoblauch eventually surmised that at least part of the reason for this had to do with the relative inaccessibility (i.e., as a result of dissociative processes) of conflicted feeling states in relation to his father. In other words, similar to Anderson's (1998) alexithymic patient (Ellen), Bob seemed to have no way to symbolize the type of relatedness that he had desired with his father—nor, as such, the type of relatedness he wanted with other men in his life, including his boss and male therapist. Knoblauch noted:

“I could see how the frustration of not knowing (i.e., the kind of relatedness he wanted from nephew, from boss, from me...rooted in severely conflicted relatedness with father, that included dissociated affective states of fear and rage), and therefore not being able to say, would result in either outbursts or lack of communication” (p. 65).

Furthermore, Knoblauch (2000) also eventually realized that his “attempts at verbal interpretation were experienced by Bob as a kind of ‘permissiveness’ that he could either ignore or exploit as he had with his mother but that he ultimately found lacking in affective responsiveness” (p. 65). All of this added up to a therapeutic “enactment” that Knoblauch characterized as a “co-constructed pattern of experiencing each other as unable to be responsive with affect that had any meaning for the other person” (p. 65).

Knoblauch (2000) described the following turning point in Bob’s treatment, which ultimately allowed him greater access to his patient’s subjective experience—especially in terms of Bob’s dissociated affective experiences of fear and rage—but, however, also had the impact of engaging Knoblauch’s own heightened bodily response: “in a way that prepared me for fight as well as flight” (p. 66):

“Bob began to speak rapidly and loudly. He was yelling, cursing, and threatening to physically hurt his boss or others. He stood up and began to pace around the room. He threw his arms out in a gesture of physical release. Startled, I maintained my seat. *I could feel my muscles tighten throughout my body.* I could feel myself preparing to protect myself, maybe restrain or immobilize him, maybe run out of the room. Bob continued to gesticulate, but now I could sense that he was not approaching me, at least not at this moment. I speculated that he was communicating to me, through reenactment, his fear of being punished. He seemed to be threatening me like his father threatened him. At the same

time, he appeared to be like a helpless, scared infant, thrashing his arms in fear and feeling out of control” (p. 65; emphasis added).

By recognizing the reenactment-like qualities of this clinical moment and, more importantly, by sensing for the first time this more vulnerable affective state, initially in *his own* bodily experience—“his [patient’s] fear of being punished”—Knoblauch found himself more able to affectively “match his [patient’s] vocal rhythm, tone, and volume and then slowly reduce the volume, slow the rhythm, and soften my tone” (p. 66).

Knoblauch added that:

“On reflection, I realized that my spontaneous responsiveness to Bob on the nonverbal dimensions of our exchange was similar to what I had observed on a videotape of Beatrice Beebe and an infant. There, with language unavailable as a communication medium, Beebe had used the rhythms, tone, and volume of her vocalizations to modulate the infant’s level of distress and arousal” (p. 66).

Knoblauch went on to report that there were many more similarly-valenced clinical interactions with Bob. Through this process, in which Knoblauch emphasized the therapeutic role of the treatment dyad’s recurrent, mutual regulation of these intense affective states, Bob was reportedly able to gradually reduce and eliminate his former outbursts, and achieve an increased sense of confidence in his ability to express his anger both verbally and more appropriately—and, importantly, without fear of being “punished.”

With this, and other similar clinical vignettes, Knoblauch (2000; 2005; 2006) has illustrated how attending to certain interpersonal and somatically-based “process contours as the medium of communication that constituted [the] interaction” (p. 66) can facilitate the gradual co-construction of a reparative, mutually-regulating, relational

experience for patients—in Bob’s case, “one that he might be able to *feel* although not verbalize” (2000; p. 66; italics from original)—from which patients may gradually be able to acquire increased self-regulation capacities.

Like Anderson (1998; 2003), Knoblauch (2000; 2005; 2006) has clearly emphasized the relevance to the treatment process of patients’ formerly dissociated affective states and their role in conceptualizing the importance of “nonsymbolized embodied registers of interaction” (2006; p. 326). Likewise, Knoblauch has also articulated and illustrated how patients’ dissociated affective states are often best accessed through relatively inevitable clinical enactments—the navigation of which requires clinicians to be attentive to “embodied registers” (Knoblauch, 2006; 326) of affectively-charged relational experiences, including “ephemeral micro-moments of patterned volume, tone, rhythm, tempo, and turn-taking—process contours that significantly shape the exchange of meanings and feelings within the unspoken dialogue of the analytic dyad” (2000; p. 76).

Knoblauch’s (2000; 2005; 2006) approach is perhaps most distinct from other contemporary relational perspectives (e.g., Anderson, 1998; 2003) in terms of its normative emphasis—for example, attending to the “musical edge of the psychotherapy dialogue” (2000) in *all* clinical situations. Knoblauch also seems to have more readily emphasized therapists’ use of clinical interventions corresponding to this “musical edge”—such as modulating one’s vocal rhythms—in order to facilitate a mutually-regulated, reparative affective experience for patients.

Following further reflection upon Knoblauch’s (2000; 2005; 2006) conceptualizations and clinical presentations relevant to my investigation of somatosensory transmissions, I have concluded that it is not necessarily fair to suggest

that the somatic nature of the clinical phenomena he detailed (in terms of actual physical sensations, etc.) was somehow less “dramatic” than other clinicians’ work I have reviewed. After all, Knoblauch reported having a “fight or flight” response to his patient during one particular session. I would like to suggest, rather, that the variable that probably better distinguishes Knoblauch’s conceptual framework and clinical illustrations is the extent to which Knoblauch is, relatively speaking, particularly “on the lookout” for evidence of his patients’ engagement of him at such subjectively-perceived, somatic levels of awareness. In other words, Knoblauch’s conceptual frame positions him to be “ready” and, therefore, also relatively *conscious of* the clinical relevance and utility of such “nonsymbolized embodied registers of interaction” (2006; p. 326) when they inevitably arise in treatment.

By framing and, in particular, normalizing these conceptual issues surrounding analysts’ relatively expectable involvement in clinically relevant, nonverbal, embodied modes of interaction and communication during the treatment process, Knoblauch (2000; 2005; 2006) has, I believe, implicitly raised important questions as to whether the more “dramatic” examples of somatosensory transmission I have reviewed may, at least in part, be perceived as relatively more “dramatic” per se by virtue of their particular contexts—that is, having occurred within particular clinical encounters involving therapists whose theoretical orientations *had not adequately prepared them* to anticipate the ways in which their bodies could necessarily be engaged by the treatment process.

In this way, I believe Knoblauch has offered a potential roadmap for further destigmatizing concepts such as somatosensory transmission phenomena—such that they might eventually be conceptualized as merely more *noticeable* manifestations of

relatively pervasive intersubjective processes and potentials inherent to certain intimate interpersonal encounters such as the psychotherapy situation.

Knoblauch has also contributed significantly to what I would consider a relatively more “thoroughgoing two-person” (Wachtel, 2008) approach to somatosensory transmission phenomena by explicitly highlighting the “rebalancing” of developmental perspectives (i.e., the “developmental tilt”; see Mitchell, 1984) that was alluded to in the introduction of this section, as well as by, more generally, addressing the way in which his own approach tends to deal with the concept of analytic objectivity:

“[w]ith the present approach, no assumptions are made about particular failures in infancy management, though these are not denied to have occurred. Nor is there any “faith” in an ultimate reality. There is faith in the capacity of the analyst-analysand pair to find in their work a grasp of what the patient is having difficulty with...it is a faith that the nonverbal dimensions of dialogue, when attended to, will provide a point of departure for the beginning of knowing and articulating previously unavailable self-experiences that have been dissociated for a variety of reasons” (2000; p. 74).

Unlike Anderson (1998), however, Knoblauch (2000; 2005; 2006) does not seem to have raised other important “two-person” considerations, such as the issue of how therapists’ own potential “dissociative tendencies” (Anderson, 1998; p. 312) may or may not influence their clinical work—or, in particular, might predispose them to experiencing or attending more readily to “nonsymbolized embodied registers of interaction” (Knoblauch, 2006; p. 326).

In contrast to both classical and object relational approaches—which I believe may be usefully characterized as more primarily focused on *macro*-regulatory

conceptualizations of psychopathology (e.g., emphasizing relatively more static constructions such as personality, defensive organization, internalized object relations, or attachment style) often rooted in patients' earliest developmental and interpersonal experiences—contemporary relational clinician-theorists have tended to focus *additionally* on *micro*-regulatory, relatively more fluid conceptualizations of psychopathology and, therefore, a more “two-person” psychotherapy process. As such, contemporary relationalists have also promoted clinical perspectives that prioritize clinicians' subjective awareness of and attention to relatively subtle, nonverbal, bidirectional mechanisms by which patients and therapists are constantly influencing and regulating each other—especially in terms of their relatively non-conscious affective experiences—and are, thereby, also constantly co-constructing a unique psychotherapy relationship. Bass (2000) summarized these developments in contemporary relational psychoanalysis well:

“Our diversity notwithstanding, psychoanalysts identifying themselves as relational generally share common clinical values, sensibilities, and emphases. Among these are an appreciation of the quintessentially subjective nature of the enterprise, the centrality of the analyst's ongoing impact on the process (not just in terms of technique but in his or her entire personhood), and an abiding sense of the complementarity between transference and countertransference. These emphases lead to a readiness to examine, in theory and in practice, the fullest possible implication of analytic relationship construed as one comprised of the two irreducible subjectivities of its participants, always shaping and reshaping the kind of experience and relationship that any given analysis will be.” (p. 880).

Each of the preceding contemporary relational clinician-theorists (i.e., Anderson, 1998; 2003; Knoblauch, 2000; 2005; 2006), whose work, I believe, is especially relevant

to my investigation of psychotherapy-related somatosensory transmissions, has articulated and demonstrated through clinical illustrations the extent to which such *intersubjective*, mutual affect-regulating processes may, under certain circumstances, manifest in therapists' own somatosensory experiences and sensations—Anderson's (1998) "countertransferential visceral, somatic responses" (p. 297) or Knoblauch's (2006) "nonsymbolized embodied registers of interaction (p. 326). To varying degrees, each of these contemporary relational clinician-theorists has also cited the role, in particular, of patients' (and, sometimes, therapists') dissociated affective functioning, in precipitating clinical instances involving therapists' relevant somatic-level experiences and sensations.

Despite my general agreement with the contributions of these preceding contemporary relational conceptualizations relevant to somatosensory transmission phenomena—especially, insofar as I believe they represent significant advances toward the construction of a more "thoroughgoing two-person" (Wachtel, 2008) conceptualization of somatosensory transmission phenomena—I also want to highlight some of the limitations of the contemporary relational literature on this subject.

As was mentioned in the introduction to this section, it was surprisingly difficult to locate contemporary relational references that were explicitly relevant to the clinical category I have labeled somatosensory transmission phenomena. This was especially true with regard to identifying clinical illustrations of the sub-category of relatively "more extreme" examples of somatosensory transmission phenomena (i.e., therapists' spontaneous, idiosyncratic physical sensations or physiological symptoms occurring in relation to clinical work), which I have identified as the primary focus of this project. I

would like to propose a couple of different, perhaps complementary, hypotheses to better explain why this may have been the case.

First of all, as I suggested earlier—when I was reflecting upon my initial perception that Knoblauch’s (2000; 2005; 2006) clinical illustrations (e.g., “I could feel my muscles tighten throughout my body” in response to his patients’ threatening physical gestures during one session; 2000; p. 65) seemed to represent a relatively “less extreme” variety of the broader category of somatosensory transmissions—contemporary relational theory would, generally speaking, seem to provide therapists with a framework that orients their clinical attention to more subjectively-perceived, subtle expressions of affective information including certain somatically-based “registers” (Knoblauch, 2006). This shift in focus, I would argue, may reduce one of the ingredients that probably most contributes to perceptions of somatosensory transmissions as “dramatic” or “extreme” in the first place—that is, the *unexpectedness* of clinically-relevant somatic-level experiences manifesting in the bodies of therapists.

On a related note, I also wonder if—by virtue of contemporary relational clinicians’ increased attention to subtle “registers” (Knoblauch, 2006) of affective experience and mutual-regulatory processing—there might not be a corresponding reduction in the likelihood of clinicians from this orientation experiencing relatively “more extreme” varieties of somatosensory transmission. In other words, if a given therapist is aware of and actively monitoring the ways in which her body may be engaged at deeply affective, even visceral or somatic, levels by her clinical work—consider, for example, Anderson’s (1998) acknowledgements of her “visceral sense of dread” accompanied by “an increase in my heart rate” and the tendency to hold her breath, which she described as “my unconscious somatic response when I do not want

to experience fully my emotional reactions” (p. 294)—perhaps the likelihood of “more extreme” (i.e., relatively more dissociated) physical or physiological reactions by the therapist necessarily diminishes under these circumstances.

This hypothesis—which attempts to explain why there might be fewer references to somatosensory transmission phenomena within the contemporary relational literature than one might ordinarily expect—is essentially my extrapolation of Anderson’s (1998) employment of Krystal’s (1988) information-processing model of affective functioning. Anderson (1998) highlighted, in particular, Krystal’s designation of an “‘expressive’ or physiological component” (p. 317) of affective experience that could be dissociated from other more cognitive and psychological aspects of affective functioning, especially under the sway of certain highly stressful, “traumatic” circumstances (see also, van der Kolk, 1994). The only assumption that I am making—implied, I believe, by Anderson’s (1998) reference to her own “dissociative tendencies” (p. 312) but, however, never made explicit—is that therapists’ “countertransferential visceral, somatic responses” (Anderson, 1998; p. 297) may, in fact, represent relatively *more dissociated* “‘expressive’ or physiological components” of their own (i.e., therapists’) affective functioning during relevant clinical encounters. Thus, to the extent that contemporary relationalists are oriented toward attending more closely to relatively subtle, nonverbal, bidirectional influences upon the treatment process in the first place, this may explain the relative dearth of clinical references to somatosensory transmissions—especially, “more extreme” varieties—within the contemporary relational literature.

Stated another way, contemporary relationalists may be more likely—on the basis of their therapeutic stance—to be regularly engaged in a kind of “psychic

elaboration” (Anderson, 1998; p. 293) of their own subjective experiences relevant to the treatment process. As such, contemporary relationalists can be said to be engaging in a process of reintegrating relatively dissociated aspects of *their own* affective experiences *before* they manifest in relatively more dissociated forms (i.e., “more extreme” varieties of somatosensory transmission). Anderson (1998), I believe, lent further support to this hypothesis when she suggested that the reason she had not “become physically ill” (p. 300) in her work with Ellen was related to having been “actively engaged in sometimes painful deliberation about this aspect of our work by reading and consulting with colleagues as I try to tolerate experiencing the ambiguities associated with our work” (p. 300).

An alternative, not necessarily contradictory, hypothesis that I would like to offer in response to the difficulties I had identifying relevant articles on somatosensory transmission phenomena reflecting a contemporary relational orientation is that this may have to do with more significant personal risks inherent in conceptualizing and, in particular, providing clinical illustration of one’s clinical experiences of somatosensory transmission phenomena from a contemporary relational perspective. In other words, on the basis of contemporary relationalists’ intersubjectivist theoretical assumptions, it would likely be less palatable for contemporary relational clinician-theorists to characterize clinical episodes involving their own subjective awareness of idiosyncratic physical sensations or physiological symptoms in exclusively “one-person,” patient-focused terms—as, for example, exclusively manifestations of the impact of patients’ primary-process “material” or as the characterological “residue” of “early” unmet needs that patients unconsciously reenact under the sway of idealized “maternal” transferences. Rather, contemporary relational clinician-theorists would likely feel

compelled to *additionally* examine and formulate *their own* potential contributions to these dramatic clinical episodes—and, thereby, would be more likely to subject their clinical decisions and judgments to a heightened, and perhaps more personal, degree of scrutiny by their professional colleagues.

Although not strictly related to somatosensory transmission phenomena<sup>12</sup>, the following references provide evidence, I believe, of some of the relevant pressures on analysts with regard to describing certain categories of clinical experiences including somatosensory transmission phenomena. Silverman (1988), whose work on “somatic correspondences” (1991) was mentioned earlier, alluded to what he perceived to be pervasive pressures within (classical) psychoanalysis, which had long impeded greater discussion and analysts’ disclosures of their clinical experiences of “thought correspondences” or “thought-transferences”:

“[T]hought-transference and telepathy tend to be considered by many analysts as not in accord with scientific tenets. Their study is said to be influenced by the persistence of strong infantile remainders such as omnipotence, superstition, and magical thinking in the investigators' unconscious” (1988; p. 270).

More recently, Mayer (2001) has referred specifically to the pressures that influenced the early clinical and theoretical writing of Robert Stoller regarding his decision to *not*

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<sup>12</sup> I have purposefully circumscribed my investigation’s focus to therapists’ clinically-relevant *physical* sensations and physiological symptoms, in part, as a way of distinguishing these phenomena from broader, but possibly related, subjects such as “thought-transferences,” “telepathy,” or “unconscious communication” (Freud, 1922; 1925; 1933; 1941; Hitschmann, 1924; 1933; Ferenczi, 1932; Roheim, 1932; Hollos, 1933; Servadio, 1933a; 1933b; 1935; 1937; 1940; 1955; Saul, 1938; Bendit, 1944; Ehrenwald, 1944; 1948; 1950; 1955; 1974; Eisenbud, 1946; 1947; 1948; 1969; 1970; Pederson-Krag, 1947; Branfman & Bunker, 1952; Gillespie, 1953; 1954; Balint, 1955; Brunswick, 1957; Löfgren, 1968; Schwarz, 1969; 1974; Ullman, 1972; Ullman & Krippner, 1973; Major & Miller, 1981; Twemlow et al., 1982; Farrell, 1983; Gabbard & Twemlow, 1994; Silverman, 1988; 1991; Lazar, 2001; Suchet, 2004) relevant to the psychotherapy process.

publish a clinical case that included what he described as “telepathic dreams” (p. 629).

Suchet (2004) summarized:

“Mayer (2001) notes that analytic considerations of thought-transference, or telepathic experiences, since Freud have appeared only sporadically. There has been much reluctance on the part of analysts to publish these experiences for fear of damage to their reputations. Of note is a fascinating paper by Robert Stoller in 1973 about a series of telepathic dreams that he was advised against publishing and that has only now been published by Mayer for the first time. Mayer explores how psychoanalysis would be the perfect forum for a deeper understanding of how one mind comes to know another, yet going public with these uncanny and apparently inexplicable experiences has been limited by fear of ridicule” (p. 264)<sup>13</sup>.

Suchet (2004) added, however, that “[t]here is hope that more recent appreciation of the intersubjective aspects of the analytic relationship will provide a new forum for exploring the complexity of strange and intense affective experiences” (p. 264).

I agree. However, these disciplinary pressures—which I have also perceived in the process of conducting my own investigation of psychotherapy-related somatosensory transmission phenomena—are among the primary reasons I have decided, in addition to examining “more recent appreciation of the intersubjective aspects of the analytic relationship” (Suchet, 2004; p. 264), to review (in the following chapter) the neuroscience literature in order to identify more “respectable” empirical

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<sup>13</sup> According to Mayer (2001): “Robert J. Stoller, M.D. (1924-1991) was the author of eleven books and over 115 psychoanalytic articles. He did pioneering work in the study of gender identity and sexual excitement while teaching at UCLA and the Los Angeles Psychoanalytic Institute...His interests were far-ranging and led him repeatedly to challenge what he saw as received wisdom or use of jargon, particularly psychoanalytic jargon. He was an outspoken advocate for bringing fresh and vitalizing perspectives to bear on psychoanalysis by considering relevant findings from other fields” (p. 630). In finally publishing an early manuscript of Stoller’s that was written in 1973, Mayer reported that Stoller had been discouraged at the time by his supervisor, Ralph Greenson, from publishing his manuscript, which detailed what Stoller described as “telepathic dreams”—involving both his own and his patient’s corresponding and clinically-elucidating dream material.

foundations for this category of clinical phenomena. My objective in doing so is to further contribute to alleviating some of these remaining disciplinary pressures that may be restricting the extent to which therapists notice and discuss this potentially useful range of clinical phenomena.

### *Additional (Non-Psychoanalytic) Psychotherapy Orientations*

Along with psychoanalysis, dance movement therapy (DMT), body psychotherapy, and Jungian analytic psychology constitute the only psychotherapy orientations whose professional literatures evidence significant interest in somatosensory transmission phenomena as a clinically relevant construct. In relatively stark contrast, however, to the psychoanalytic literatures, the professional literatures of these other orientations benefit from already containing several recently published and relatively comprehensive reviews of their disciplines' clinical and conceptual approaches to somatosensory transmission phenomena. Therefore, I will primarily refer the reader to these existing reviews of the dance movement (Pallaro, 2007; Vulcan, 2009) and Jungian analytic psychotherapy literatures (Stone, 2006), while focusing more narrowly here on highlighting the particular similarities and distinctions I found between these orientations' approaches to somatosensory transmissions and those I have already reviewed from the psychoanalytic literature. Once again, wherever possible I will provide detailed clinical instantiations of somatosensory transmission phenomena as they have appeared in the professional psychotherapy literatures.

I should probably state at the outset, however, that given what might be considered the relatively less "conflicted" nature of these other orientations' conceptual relationships to the physical body and bodily processes (as compared to

psychoanalysis)<sup>14</sup>, these other psychotherapy orientations seem to have had *even less* impetus to formally examine some of the primary questions that have informed and organized my investigation—namely, 1) *how* such somatosensory-level transmissions between patients and therapists occur, and 2) with *which* patients, and under *what specific clinical circumstances*, are these types of transactions more likely to take place.

A poignant illustration of the relative difficulties that I had examining my primary research questions from the perspectives offered by these other psychotherapy disciplines can be gleaned from a quip by Soth (2002), a prominent body psychotherapist, regarding the general tendency among psychotherapists to increasingly qualify certain countertransference responses to their patients as “somatic” countertransferences; Soth (2002) opined that this trend struck him as the equivalent of saying “swimming fish” (p. 130)—in other words, as completely redundant to the extent that, as a body psychotherapist, his view is that *all* countertransference responses are “rooted in a continuous awareness of [therapists’] own somatic reality in the first place” (p. 130).

#### *Dance Movement Therapy/Body Psychotherapy*

Although dance movement therapy (DMT) and body psychotherapy represent distinct psychotherapy disciplines, sufficient overlap exists, in particular, in their approaches to somatosensory transmission phenomena (e.g., cross-fertilizing of each others’ primary journals, literature reviews) to justify, I believe, combining them into one section.

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<sup>14</sup> See MacDougal (1989) for elaboration of the historical challenges that psychoanalysis has had with clinical conceptualizations involving the physical bodies/bodily experiences of patients, let alone that of therapists.

According to the *American Dance Therapy Association* (1974), dance movement therapy (DMT) can be described as “the psychotherapeutic use of movement as a process which furthers the emotional and physical integration of the individual.” Dance movement practitioner-theorists characterize bodily movement as “the most primary means of communication” (Bernstein, 1982; see also, Pallaro, 2007; Vulcan, 2009). Furthermore—with special relevance to my investigation of somatosensory transmission phenomena—DMT therapists have generally conceived one of their primary therapeutic functions as allowing their own bodies to serve “as a vessel to receive, contain, and metabolize the patient’s split-off parts” such that “in the mirroring that is created, the patient’s somatic unconscious may receive an experience of wholeness” (Lewis, 1984; p. 181).

While these ideas may sound quite similar to, especially object relational, conceptualizations within psychoanalysis, it should be noted that the earliest psychoanalytic references to therapists explicitly using their own physical bodily-based experiences and sensations in facilitating such “reception,” “metabolizing,” and “containment” functions of psychotherapists did not appear until several years later (Wrye & Welles, 1989; DaSilva, 1990; Welles & Wrye, 1991).

The relevant therapeutic technique that is most often referred to by DMT practitioners is “kinesthetic empathy” (Berger, 1972; Bernstein, 1984; Dosamantes-Alperson, 1984; Dosamantes, 1992; Pallaro, 2007; Vulcan, 2009). The earliest reference to kinesthetic empathy appeared, once again, *before* psychoanalysis began its own formal consideration of this category of clinical phenomena:

“[O]ur emotional reactions are not only determined in terms of kinesthetic recognition, but in terms of kinesthetic response as well. We assimilate what we

perceive into our own present experience in the form of kinesthetic mimicry. We may perceive emotional behavior in others and immediately experience it within our own bodies through kinesthetic empathy” (Berger, 1972; p. 209).

DMT practitioners have typically conceptualized kinesthetic empathy as a relatively “active” technical intervention, which has also been described as “a recreation of the client’s bodily movements in the therapist’s body, which enables the therapist to sense and respond to the client’s emotional state” (Dosamantes-Alperson, 1984; p. 278)<sup>15</sup>. In addition to providing DMT therapists insight into their patients’ embodied affective states and allowing them to more effectively reflect “a bodily-felt understanding of the patient’s inner affective states” (Pallaro, 2007), this active monitoring and adapting of the therapist’s body to “mirror” that of her patients’ postures, gestures, facial expressions, and other physical mannerisms is also typically integrated with some form of verbal reflection upon the meanings of this range of nonverbal experiences. Dosamantes (1992) wrote that this emphasis on eventual verbalization facilitated patients’ “return...to a more differentiated state of relating” and “help[ed] them detoxify previously self-denigrating experiences” (p. 364).

Whereas, classical psychoanalysts have long considered patients’ relatively uninhibited verbalizations, or “free associations,” among the analyst’s primary means of accessing patients’ unconscious processes, DMT practitioners have posited that use of kinesthetic empathy provides them with a form of “nonverbal free-association” (Dosamantes, 1992). In fact, linking kinesthetic empathy and free-association has itself evolved into a DMT-related “therapeutic process” (Pallaro, 2007; p. 185) known as “authentic movement” (Adler, 1985; Haze, 1993; Dosamantes-Beaudry, 2003; Pallaro,

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<sup>15</sup> Fromm-Reichmann (1960), working from a psychoanalytic *Sullivanian* perspective, also focused upon patients’ bodily experiences and, in fact, proposed a very similar clinical technique.

2007), in which a DMT practitioner actively attends to “her own bodily-felt reactions while simultaneously attending and tracking the emotional tenor and potential meanings contained in the client’s enacted movement metaphors” (Dosamantes-Beaudry, 2003; p. 77). Dosamantes-Beaudry (2003) went on to characterize the clinical practice of authentic movement as a “somatic intersubjective dialogue” (p. 77). Pallaro (2007) added that “this discipline [authentic movement] focuses on the mover’s *and* the witness’s [therapist’s] bodily-felt experiences and provides a forum for their discussion” (p. 186; emphasis added).

As might be expected, DMT practitioners tend to characterize the range of physical manifestations associated with therapists’ kinesthetic empathy rather broadly, including “sensory or kinesthetic sensations, physical symptoms, shifts or distortions of the body image and enactments” (Dosamantes-Beaudry, 1997; p. 522), and “dizziness, emptiness, hunger, fullness, claustrophobia, sleepiness, pain, restlessness, sexual arousal, and so forth” (Pallaro, 2007; p. 185).

I will briefly review a relatively typical clinical example from the DMT literature that, I believe, illustrates several important aspects of DMT practice and, in particular, this orientation’s approach to somatosensory transmission phenomena (Ragan & Seides, 1990). This case, for example, highlights the more “active” role that therapists assume in terms of orienting themselves to “listen” to their patients using their own bodily experiences, and also, I believe, illustrates the general view among DMT practitioner-theorists that external action or “movement” serves as an effective and facilitative precursor to patients’ eventual verbalizations.

Ragan and Seides (1990) were co-therapists over a six-month period to a female psychiatric inpatient in her late twenties described as “epileptic,” “borderline” and

having “a history since early adolescence of acting-out behavior as manifested by alcohol dependence, binge drinking to the point of blackouts, promiscuity, wild displays of vicious temper at home, especially toward her mother, head banging, wrist cutting, and reckless driving” (p. 116-117). Both co-therapists acknowledged “strong countertransference feelings” (p. 119) with this patient, named Jessie. In the case formulation, the authors highlighted Jessie’s early attachment trauma that included the onset of her seizures in infancy and her parents’ inability to effectively care for her: “her parents felt overwhelmed by her unremitting epilepsy, and her mother insisted that she be sent away” (p. 117). Jessie, in fact, lived for years in “a residential school for the mentally retarded” (p. 117) even though she exhibited no evidence of severe cognitive deficits.

Dance movement therapy was reportedly initiated early in Jessie’s treatment following her psychiatrist’s (Dr. Ragan) observation that:

“I found myself pressuring her to talk and often would speculate aloud about how she must feel. Instead of responding verbally, she acted-out her distress by head banging, wrist abrading, throwing furniture, and wishing she were dead, since she felt her life was pointless anyway. These behaviors were particularly intense at times of separation when two or more days would pass between sessions” (Ragan & Seides, 1990; p. 117-118).

The authors stated that, “Jessie was, as are many borderline patients, developmentally fixated at a preambivalent and preverbal stage” (p. 126)<sup>16</sup> and that they “hoped to engage her on this level, in which the ‘body ego’ (Freud, 1923) is preeminent, through movement psychotherapy” (p. 126).

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<sup>16</sup> For a critique of this “literalist” view of the developmental fixations of borderline patients, see Westen (1989).

Both incidents of somatosensory transmission, or what Jessie's dance movement therapist, Ms. Seides, referred to as "kinesthetic empathy" (Ragan & Seides, 1990; p. 127) occurred in the context of Jessie's dance movement therapy. In the first such incident, which occurred very early in the co-treatment, Seides reported:

"I experienced a sudden impulse to move physically closer to Jessie, but found myself reluctant to do so. Just as I experienced this feeling, [Jessie] blurted out, 'today I really wanted to sit next to Dr. Ragan, but was scared he'd tell me to get away, so I stayed in my chair. The chairs are so far apart in his office'" (Ragan & Seides, 1990; pg. 118).

The second occurrence of somatosensory transmission occurred several months later after Jessie learned that her mother had been insisting she be transferred to outpatient care—in opposition to both her daughter's will and her treatment team's recommendations. Earlier in her treatment, Jessie had reportedly established a meaningful link between recurrent bouts of lower-back pain and her mother's insistence regarding various aspects of her life—essentially, Jessie experienced back pain in situations in which her own feelings were not being sufficiently considered by her mother. Seides reported:

"Jessie came to a session complaining of menstrual cramps. She stated, 'Sometimes I hate being female. The body can bring your mind down and the mind can bring your body down.' I suggested that we try some breathing and Jessie lay on her back with her legs bent at the knee (somewhat reminiscent of the child-bearing position). I did so as well, and we began to breathe together, directing the breath toward the lower abdomen. With little effort Jessie was able to adapt her breathing, hence her body rhythm, to my own, much as the neonate's breathing patterns are adapted to those of the mother while being held. Jessie began to speak, 'I keep looking for the love I can't get from my parents. I won't have a decent relationship with a man until I resolve this stuff

around my mother and father...I gotta stop using men to get what I haven't gotten from my parents.' Jessie sat up on the mat. She continued, 'I haven't changed in here. I'm no better at expressing myself nonverbally than before. I try to be what I'm supposed to be in here, but I don't know what that is. I don't know in life either...She was furious now, asking for just one reason why she should stay in treatment. She screamed, pounding her fist on the mat, 'I can't see any increase in my nonverbal expression!' Simultaneously, I experienced *an intense aching sensation in my lower back*, similar to that which Jessie had often described experiencing when her mother would angrily hang up on her in the middle of phone conversations...The focus shifted and she said, 'Maybe sex would help—make things better—relax me—at least I wouldn't be so frustrated...I could never talk to Dr. Ragan like this. He's a doctor. We have a different relationship.' Jessie lay down again. 'I can lie around here on the floor and talk about sex. Not that I'd lie on the floor with him [she's embarrassed]. I just can't flop down in his office. I've been asking him to walk with me from the beginning. I know it would be easier for me to be open if we could walk together.' Jessie got up to go. She walked over to me and said, 'Hug?' We hugged and she left with, 'I'm sorry I was such a bitch today.'" (Ragan & Seides, 1990; p. 122-123; emphasis added).

Jessie was subsequently able to verbalize these desires with her psychiatrist—not only her wish to take walks with him, but to curl up on his couch “safe and warm, so no one could get to me” (Ragan & Seides, 1990; p. 123). This verbal breakthrough led to Jessie's increased experience of underlying desires to have been better taken care of by her parents, as well as a growing recognition of the role that these early unmet needs had played in her former impulsive and addictive behaviors. The authors conclude by stating that “by specifically engaging [Jessie's] tendency to communicate through enactment, we used movement psychotherapy to foster improved verbal and cognitive abilities. By containing and enhancing movement transference relationships, the more traditional work with verbal transferences was facilitated” (p. 115).

Reflecting some of the considerable parallels between DMT and psychoanalytic object relational clinical conceptualizations, Ragan and Seides (1990) characterized their co-therapy's use of a movement-focused version of free association as what eventually permitted Jessie to achieve a reparative "psychosomatic potential space" (p. 128) that had been lacking in her early childhood. The authors elaborated their concept of "psychosomatic potential space" (p. 128) as located just prior to Winnicott's (1951; 1971) stage of transitional phenomena, during which "precursor objects" such as "the infant's skin surface and muscle tonicity; its thumb and hand; the mother's breasts, face and eyes; the smells and sounds, movements and rhythms of the maternal infant 'cocoon'" (Ragan & Seides, 1990; p. 127) are cathected by the infant and, thereby, come to symbolize "the maternal-infant affective, symbiotic unit...an early form of object relatedness" (p. 127).

Wyman-McGinty (1998) has also conceptualized the use of "authentic movement" as "replicat[ing] aspects of the mirroring relationship inherent in the infant-mother dyad, in which the mother is able, through words and behavioral gestures, to communicate to the infant an understanding of his internal world at a bodily level" (p. 252). Wyman-McGinty talked about how authentic movement practice allowed therapists to access "somatic aspects of [their patients'] unconscious experiences" (p. 243), allowing these physical experiences to be linked to images within the "transitional space" (Winnicott, 1951) of the psychotherapy; thus, constructing a means by which patients' "primitive infantile feelings" (Wyman-McGinty, 1998; p. 249) that characterize their "inner world" are gradually translated via symbolic images and language into communication with important others in their "the outer world" (Wyman-McGinty, 1998; p. 242).

A more recent, but essentially similar (to Ragan & Seides, 1990), clinical illustration of a DMT practitioner-theorist's work with an adult female patient, also depicted as suffering from severe characterological maladjustments rooted in "early attachment trauma," which also happened to involve several instances of somatosensory transmission phenomena, was reported by Trautmann-Voigt (2001).

As was commonly the case with psychoanalytic references to somatosensory transmissions, there has not been a great deal of emphasis placed on understanding the particular underlying neurophysiological mechanisms involved in these clinical phenomena within the DMT and body psychotherapy literatures. Instead, DMT therapists have largely tended to incorporate, primarily classical and object relational, psychoanalytic conceptual perspectives in order to make sense and clinical use of these occurrences—as evidenced, in particular, by DMT practitioner-theorists' relatively *literalist*, or concrete, approaches to patients' *fixated* or *arrested* early experiences, as well as in their general incorporation of concepts like "nonverbal free-association" (Dosamantes, 1992), "kinesthetic free-association" (Wyman-McGinty, 1998), "psychosomatic potential space" (Ragan & Seides, 1990) and "authentic movement" as transitional space (Wyman-McGinty, 1998).

Another similarity between DMT approaches to somatosensory transmissions and certain object relational approaches within psychoanalysis (e.g., Orbach, 2004) has been DMT theorists' conceptual reliance upon Racker's (1968) designations of distinct categories of countertransference experiences—that is, interpreting the particular meanings of episodes of kinesthetic empathy in terms of their "concordant" versus "complementary" properties (Lewis-Bernstein, 1979; Dosamantes-Alperson, 1984; 1987).

Unlike psychoanalytic approaches to somatosensory transmissions, however, Bernstein (1984) also referred to an additional conceptual distinction contained within Racker's (1968) general arguments regarding countertransference phenomena—that is, between those that may be therapeutically useful (i.e., “concordant” or “complementary” to/with the feelings/sensations of patients or their primary objects) and those that, rather, are indicative of a therapist's own “neurosis” (Racker, 1968). Although this potentially important distinction has not yet been sufficiently elaborated within any of the literatures I have reviewed, there does appear to be more implicit attention given to this issue within the DMT literature—in other words, to the idea that certain somatic manifestations of therapists' clinical experiences may *not* be facilitative of the treatment process. Vulcan (2009), for example, acknowledged that “the recognition of SCT [somatic countertransference] on the part of the therapist, or the ability to differentiate it from bodily sensations that are not elicited by the encounter, is neither automatic nor trivial” (p. 275). Similarly, Pallaro (2007) implied that this ability to distinguish clinically-relevant somatosensory transmissions from non-relevant somatosensory phenomena takes time to develop: “[s]everal years of commitment to this work enables the witness [therapist] to separate her/his conscious and unconscious activities and own the inner kinesthetic, somatic, or imaginal responses elicited in relationship to the mover” (p. 186).

Certainly, DMT conceptualizations might also be usefully compared with contemporary relational psychoanalytic approaches to somatosensory transmission phenomena—especially, in terms of their emphasis upon subtle, bodily-based, enacted aspects of patients' underlying affective experiences and the process-oriented implications of therapists' increased attention, in particular, to these aspects of the

psychotherapy interaction (e.g., “mirroring” patients’ bodily-felt states in order to help patients to eventually symbolize corresponding feeling states). However, I was not able to find any DMT-oriented references to somatosensory transmission phenomena that also specifically cited therapists’ potential contributions to these exchanges—other than via the therapist’s primary use of his or her body as a “vessel” with which to “receive, contain, and metabolize” patients’ bodily-based affective experiences (Lewis, 1984). In this way, therefore, DMT approaches—at least insofar as their consideration of somatosensory transmissions are concerned—are probably more accurately compared with object relational approaches in psychoanalysis that have emphasized therapists’ participation within a relatively narrowly-defined “transference-countertransference” relationship akin to mother-infant dyads.

Once again, because DMT practitioner-theorists tend to view therapists’ kinesthetic empathy (or, “somatic countertransference”; Pallaro, 2007; Vulcan, 2009) as such an essential component of their clinical work, there are understandably few references to the specific clinical circumstances that are more or less likely to promote these types of exchanges between patients and therapists. As was also the case with the psychoanalytic literatures, DMT practitioners have tended to emphasize the *utility* of somatosensory transmissions when working with particular patient populations that—based on the relative inaccessibility of important affective experiences or as a result of limitations in affect-regulation or language abilities—make especially good candidates for DMT (e.g., adult patients with characterological deficits stemming from early attachment-related trauma). However, it was unusual for DMT practitioner-theorists to list specific clinical circumstances that would lend themselves to therapists’ experiencing somatosensory transmissions.

Lewis (1984), however, did address individual differences between DMT practitioners along this dimension when she argued that certain therapists would naturally be more likely to utilize their own “sensate experiences” to “receive, contain, and metabolize” patients’ affective experiences; whereas, other therapists, who would, nevertheless, “receive” patients’ clinically-relevant “somatic phenomena” more readily translate these “sensate experiences” into “thoughts, feelings, or images” (p. 326).

The primary criticisms that I have with DMT and body psychotherapy approaches to somatosensory transmission phenomena are, in fact, very similar to those I have discussed with regard to more “one-person” conceptualizations within psychoanalysis. It is that these approaches have generally tended to either implicitly dismiss or not sufficiently appreciate the potential influences or contributions of therapists to these clinical incidents, which, after all, involve therapists’ own subjectively-perceived bodily experiences. This is evident in the relatively “one-person” metaphors used by DMT practitioner-theorists to characterize the primary functions of therapists—as “witness” or “container” of patients’ bodily-based affective representations. In this light, consider, once again, Pallaro’s (2007) statement regarding authentic movement practice: “[s]everal years of commitment to this work enables the witness [therapist] to *separate* her/his conscious and unconscious activities and own the inner kinesthetic, somatic, or imaginal responses elicited in relationship to the mover” (p. 186; emphasis added).

### *Jungian Analytic Psychology*

Within the Jungian analytic psychology tradition, Samuels (1985; 1989; 2000)—who refers to his own theoretical orientation as *post-Jungian*—has investigated and

written extensively on the clinical concept of “embodied countertransference” phenomena. In his most recent publication relevant to this subject, Samuels (2000) emphasized that Jungians, for a variety of reasons, have historically been in a comparatively better position relative to other psychotherapy traditions (most notably, other psychoanalytic orientations) to consider and appreciate the therapeutic relevance of these particular clinical phenomena<sup>17</sup>.

Samuels argued that Jungians have traditionally been more amenable to examining the contributions of the therapist to the psychotherapy exchange, stating that, “Jungian analysis has been for a long time a rather good laboratory in which the practitioner’s role has been scrutinized more thoroughly than in other schools of depth-psychological theory” (p. 403). Samuels based his contention on: 1) Jung’s early emphasis of the importance of analysts being “in the treatment as much as the patient” (p. 403) and Jung’s related advocacy for “compulsory training analyses” (p. 405); 2) Jung’s appreciation for bidirectional and nonverbal aspects of the treatment process, as evidenced by Jung’s insistence upon conducting treatments in a face-to-face manner; and, 3) Jung’s characterization of the analyst as a “wounded healer” (p. 403) who “projects his or her wounded parts onto the patient” while “the patient projects his or her healthy/healer parts onto the analyst” (p. 404).

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<sup>17</sup> Samuel’s contentions in this article with regard to Jungians’ relatively earlier and more hospitable theoretical environment for the study of somatosensory transmissions were further supported, in fact, by my review of the literature, which included the following especially forward-looking citation that I discovered by the Jungian analyst, Hillman (1964). This citation represents the earliest relatively specific mention of somatosensory transmission phenomena that I was able to find in all of the psychotherapy literatures: “[t]he analyst knows that there is no lasting changes unless the body is affected. Emotion always tears at the body, and the light of consciousness requires the heat of emotion...The analyst also pays the same careful attention to *his own body*, listening to cues in *his own flesh* to aid his dialectic. He tries to sense during the hour when he is tired and hungry, sexually excited, slumped in passivity, irritatedly fidgeting, or *developing symptoms and illness*. His body is a sounding board” (p. 146; emphasis added).

Furthermore, with regard to what he perceived as Jungians' greater receptivity to the examination and clinical utilization of "embodied countertransference" phenomena, Samuels (2000) also highlighted Jungians' more well developed and theoretically-grounded interests in the roles of underlying bodily processes in psychotherapy. Samuels traced his contentions on this subject to Jung's concept of "archetypes." Samuels argued that, although often misunderstood by non-Jungians to represent "inherited images" (p. 409) or relatively universal *imagistic* representations, archetypes were, rather, intended by Jung to constitute a broader category of "inherited structures...predispositions to organize experience" (p. 409) and, therefore, might be better understood as "psychosomatic structures" (p. 410)—that is, psychological *as well as* biological, physiological, or neurophysiological mechanisms and potentials that manifest as relatively common ways in which human beings tend to organize their experience of reality. Therefore, Samuels argued, the central place of archetypes—of these "psychosomatic structures"—within a Jungian metapsychology, which actively considered the contributions of *both* psychotherapy participants, could be seen as underlying Jungian analysts' traditionally greater interest in and sensitivity to the bodies and clinically-relevant bodily processes of patients *and* therapists.

In spite of Samuel's (2000) compelling arguments regarding what he perceived to be the comparatively more "two-person"—and "two-bodied"—foundations of Jungian conceptual frameworks, Samuels may have undermined his arguments somewhat—at least insofar as somatosensory transmission phenomena are concerned—by providing only a single "hypothetical" clinical illustration with regard to "embodied countertransference" (p. 411). In this rather generic example, Samuels imagined himself to have become "depressed" in relation to a patient. He briefly

illustrated the concept of embodied countertransference and its potential clinical significance as follows:

“[M]y experience of becoming a depressed person may stem from the presence and operation of such a person in the patient’s psyche. The patient may have experienced a parent as depressed, and *my reaction precisely embodies the patient’s emotionally experienced parent*. I have also become part of the patient’s inner world. I emphasize inner world because I am not attempting any kind of factual reconstruction that would discover a depressed parent. Indeed, the depressed parent may himself or herself be symbolic of a depressive theme active in the patient’s psyche rather than literal or causative of anything (parent as symbolic image). This entire state of affairs I have come to call ‘embodied countertransference’” (p. 411; emphasis added).

Aside from using a relatively vague descriptor of “embodied” clinical phenomena—“becoming a depressed person” (p. 411)—Samuels appears to have illustrated the clinical significance of embodied countertransference phenomena in a characteristically “one-person” manner—that is, by assuming that his “depression” in this imagined scenario “*precisely embodies the patient’s emotionally experienced parent*” (p. 411; emphasis added). In other words, based on this admittedly “hypothetical” clinical example, there would appear to have been relatively little consideration of the therapist’s own contributions to the embodied countertransference.

Samuels did, however, provide evidence of his conflicted views regarding this aspect of his theorizing—to the extent that he later wrote:

“One change over the years has been that I have got more and more suspicious that, in common with other analysts, I have been a bit too glib and facile about usable countertransference communications and being in a state of countertransference readiness. Maybe we have pulled a power ploy on patients

by understanding *our* depression as a communication of *their* depression” (p. 412-413; emphasis added).

However, as Samuels (2000) may have been alluding to in the aforementioned statement, relatively “one-person” conceptualizations of embodied countertransference can also be found within several of his earlier writings on this subject—including, for example, in his earlier definitions of these clinical phenomena as the “physical, actual, material, sensual expression in the analyst of something *in the patient’s psyche*” (1985; p. 52; emphasis added).

Wieland-Burston (1987) is another Jungian clinician-theorist who has provided several illustrations of this category of clinical phenomena—which she refers to as “bodily countertransference” (p. 123). In one such example, Wieland-Burston described her response to a sudden “strong and burning pain in my right leg” (p. 119) experienced in the context of listening to a female patient describing “an event in her childhood that seemed to me very dramatic,” but who “showed no emotion” (p. 119):

“The sensation was strange, foreign and very unpleasant. And so it drew my attention...and held it. Disturbed, I noted it, tried to figure out what had happened, what might have stimulated it...I readjusted my position, sitting up straight in my chair, with both feet solidly placed on the ground. Recalled to myself by the pain, by this increase in tension, I become conscious of my way of being there—physically and psychologically, I find my own position again and try to find the necessary analytical distance after having allowed myself to be ‘im-pressed’ upon by my analysand...I try to understand what this sensation might be all about, what place it might occupy in the psychic reality of the moment—the other person’s? mine?...Not finding anything particular on the personal level, I try to contact the sensation, to concentrate my attention on it and to allow myself to be led by it, to an image, a feeling, an idea, a memory, whatever it calls up” (p. 119).

One notices, at least within Wieland-Burston's (1987) presentation of her clinical process, how the analyst seems to have been engaged in a relatively more dimensional ("two-person") examination of the potential clinical significance of her idiosyncratic bodily experiences—especially, when she explicitly considers the relevance of her patient's *and* her own "psychic reality of the moment" (p. 119) in relation to these physical sensations. Determining, however, that her physical sensations did not seem to be associated with her own psychic reality, Wieland-Burston went on to characterize the clinical importance of this particular incident of bodily countertransference along relatively traditional, patient-focused lines; she wrote that she would eventually learn that her patient:

"had suffered from a serious and extremely painful physical ailment at about the same age she was when the [emotionally painful] scene she portrayed had taken place. She was not conscious of the relationship between her physical pain and emotional suffering. I understood this experience as having helped me to contact an important dimension of this analysand's life. I had been drawn into her pain, *feeling it in my own body...*[M]y analysand had never found sufficient comfort. Nothing could soothe this pain and so it had to be blocked off in a defensive way. During our discussion [initiated by the analyst in response to her own physical sensations, but focused primarily on patient's emotional pain] the pain in my leg ultimately subsided" (p. 120-121; emphasis added).

Sounding similar in certain ways to the intersubjectivist, process-focused descriptions of contemporary relationalists (e.g., Anderson, 1998; Knoblauch, 2000), Wieland-Burston (1987) likened the therapist's role—in terms of facilitating instances of bodily countertransference—to that of the "rhythmic" bodily-based balancing act of a "trapeze artist" (p. 128):

“He must be able to get and keep his balance when he gets back to his bar. It is just as essential that he be capable of allowing his body to fly out in a rhythm corresponding to that of his partner on the opposite bar. If he cannot find his balance again, the result can be fatal; if he cannot allow his body to let go in the flight towards his partner, he cannot join him in the air” (p. 128).

Furthermore, with regard to analyzing and determining the particular clinical significance of bodily countertransferences, Wieland-Burston’s (1987) clinical metaphors belie her attention to the potential hazards of objectification or reification in clinical theorizing—for example, when she likened her own techniques for “decoding” (p. 121) the meanings of bodily countertransferences to that of analyzing patients’ dream content:

“[C]omprehending their depth and breadth is an illusory expectation, just as illusory as the expectation that one understand the exact meaning of dreams. I believe this neither possible nor helpful. Rather, the effort of contacting and entering into the experience, taking it seriously, has a central significance. The therapeutic process having to do with the integration of the various parts of the personality is related not to putting all of the pieces of the puzzle in the right place, but to caring for them, devoting to them the time, energy and care that they require” (p. 121).

However, in further scrutinizing Wieland-Burston’s (1987) clinical illustrations of bodily countertransference phenomena, I also found some evidence of general tendencies seen throughout much of the psychotherapy literatures relevant to somatosensory transmission phenomena—that is, toward relatively “glib and facile” (Samuels, 2000; p. 412) characterizations of these clinical phenomena in almost exclusively patient-focused terms. For example, Wieland-Burston reported the following brief clinical vignette:

“A woman enters, hardly looking at me. She takes her seat and tells a dream. I feel something like a shot in the nape of my neck. I have no idea what this might be about, so I just sit still and wait and listen—to the woman and to the sensation. The latter disappears at the exact moment when the former says, ‘I know, you just want me to get angry with you, so that I’ll express the anger inside of me. But, I won’t do it!’” (p. 123-124).

Wieland-Burston (1987) began another illustration of bodily countertransference with a different female patient with the following statements:

“Our hour had just begun when I felt, almost immediately in her presence, a high tension in the form of *a sharp, intense pain in my left shoulder—a spot whose tensions I am too well acquainted with*. The unexpected and striking way the tension had set in (so early in the hour) and the fact that it hurt a lot made me decide to broach the subject as soon as possible. I did so by asking her what she felt like at the moment” (p. 122; emphasis added).

Wieland-Burston went on to detail how her initial physical sensations in this clinical episode had sensitized her to her patient’s well-hidden tendency to “grin and bear it” (p. 122)—with regard to various pressures and tensions in her life—and, in particular, led Wieland-Burston to productively focus on her patient’s tendency to “screw up her face” or “grimace” (p. 122) at certain moments during her sessions without any further elaboration of the feelings that might underlie these facial contortions. Concluding this vignette, Wieland-Burston wrote:

“I believe that in my bodily countertransference I was drawn into the tension that was inhabiting my analysand. She was then capable of recognizing and accepting it as *hers* and, thus, we were led to a central core of the experience. Here we discovered that her need and desire to express herself was often

blocked by inhibitions having to do with her life history. These created tensions that I could regularly feel in our hours together” (p. 123; emphasis added).

What I want to highlight here is how Wieland-Burston, at least initially in this case presentation, made a subtle, perhaps unintentional, reference to her own potential contributions to the clinical process—“a sharp, intense pain in my left shoulder—a *spot whose tensions I am too well acquainted with*” (p. 122; emphasis added)—but, however, never returned to elaborate the meaning of these pain symptoms *from her own perspective* and, instead, focused her remarks entirely upon the meanings of these pain sensations for *her patient*<sup>18</sup>.

Once again, my primary reason for highlighting these additional clinical examples of bodily countertransference (Wieland-Burston, 1987) has been to further illustrate what I see as a relatively pervasive tendency within the psychotherapy literatures, even among clinician-theorists, like Wieland-Burston—whose work appears to be relatively accustomed to, and whose theoretical orientation might naturally orient them towards, conceptualizing clinical work more generally from within a “two-person” psychotherapeutic framework—to either dismiss or oversimplify the “two-person” complexities of somatosensory transmission phenomena, in particular, with regard to

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<sup>18</sup> I am aware that I may be running the risk here of sounding as if I am espousing an overly rigid “thoroughgoing two-person” perspective that would accept nothing less than a Ferenczi-inspired *mutual* analytic process. I want to assure the reader that this is not the case. What I mean to emphasize here is what I see as the potential pitfalls too easily stumbled-into by even those of us, like Wieland-Burston (1987), who espouse relatively two-person perspectives in psychotherapy—that is, of rather too quickly *skipping-over* the step where we, as therapists, consider *our own* potential non-conscious contributions to the clinical process and, thereby, *miss* the clinical opportunities that I believe may be offered, in particular, by such instances of somatosensory transmission phenomena. I will further elaborate my rationale for *why*, as well as offer particular technical recommendations with regard to *how*, therapists should attempt to more consciously consider their own potential contributions at such clinical moments in Chapter 4.

the relative contributions of a therapist's own "psychic reality" (Wieland-Burston, 1987; p. 121) to these clinical transactions.

In addition to compiling a thorough, relatively recent review of primarily Jungian contributions to the study of "embodied resonance in the countertransference" or "embodied countertransference" (p. 109; see Samuels, 1985; 1989; 2000; Field, 1988; Schwartz-Salant, 1989; Spiegelman, 1996)—Stone (2006) has also provided several detailed illustrations of embodied countertransference responses from his own clinical work. Stone—who defined embodied countertransference as those instances in which "the analyst experiences a somatic reaction rather than the more common countertransference responses of thoughts, feelings, images, fantasies and dreams" (p. 109)—has likened therapists' use of their own bodies during clinical encounters to the acoustic functions of a "tuning fork"—"[r]esonance occurs when the analyst's bodily tuning fork vibrates with the patient's psychic material through the unconscious" (p. 115).

In one clinical example, Stone (2006) detailed a session with an adult male patient diagnosed with "manic-depression" (p. 110). In this particular session, Stone described the "stuck and helpless" feelings that he (the therapist) had recently become aware of having in relation to this patient, who had, once again, fallen into silence, "deep in thought about his relationship with his mother" (p. 110):

"As I sit there I begin to feel a tightness in my chest and find it hard to breathe. Although I do not suffer from asthma, he does and I wonder if this is how it feels. The tightness increases, and it is hard to get enough air in or even to breathe out. I decide to break the silence and ask him how he is feeling. I do this as a way of trying to use what is happening to me in the countertransference, but mainly in the hope that if I say something I will be able to breathe again. He says he isn't feeling anything, and looks at me blankly through his thick lenses.

My anxiety increases, I am becoming afraid I soon won't be able to breathe at all, and I blurt out, almost gasping, 'How does your chest feel?' He looks at me in shock, pulls his feet up, draws his legs up to his chest in a fetal position and howls. As he starts to sob and weep I feel the tension run out of my chest, down through my solar plexus, and with relief I breathe in deeply and easily" (p. 110).

Stone (2006) spent some time speculating as to the potential meanings of this incident—in terms of his patient's relatively early loss of his father and his subsequent "domination" by an "overpowering and neurotic mother" (p. 111). However, somewhat refreshingly when compared to the more "glib and facile" (Samuels, 2000; p. 412) accounts of somatosensory transmissions seen throughout the psychotherapy literatures, Stone ultimately admitted that "[t]o this day I have no clear idea what he felt or what this episode represented" (p. 111). Nevertheless, one aspect of this occurrence that Stone does, at least implicitly, seem to be relatively clear about is that his own physical sensations were somehow serving as representations of his patient's suffering: "For my part, I also had little idea what was going on *beyond feeling empathically the pain and grief his body was expressing*" (p. 111; emphasis added). In other words, there is no apparent reflection upon the therapist's own history—for example, the therapist's own associations to feeling "stuck and helpless," perhaps, in relation to "overpowering and neurotic" women (p. 110-111)—and its potential to inform our understanding of this particular instance of embodied countertransference.

In another clinical example, Stone (2006) described the experiences of one of his "highly intuitive" (p. 115) supervisees who reported that "[d]uring the first session with a new patient he suddenly had a pain in the top of his left arm" (p. 115). Stone continued:

“Session after session the therapist was struck with the pain, which at times was almost unbearable. Initially the patient was very closed up, but as her trust gradually grew she was able to speak more about her life, and details of her difficult childhood emerged. As the patient was telling the therapist about her relationship with her mother, the pain in the therapist’s upper arm increased and he found himself holding it. In tears and great distress the patient recounted how when she was small her mother would get into rages, pull her dress or top off, and holding her by her right arm would mercilessly beat her at the top of her left arm with the bristle side of a hair brush, often drawing blood and leaving her bruised and terribly sore. Following this session the therapist never had the pain again” (p. 115-116).

In one final clinical example, Stone (2006), once again, detailed his own embodied countertransference reactions to an adult female patient—a single mother whose own mother had died when she was quite young. Stone wrote:

“At first F looked forward to sessions but she soon became stuck, and angry that I would not fulfill her fantasies: I was not available to see her and phone whenever she wanted. Her anger with me was stated in a calm controlled way, never openly. The effect on me was a terrible pain in the right-hand side of my neck that I associated with her unexpressed anger towards her mother and me. She then told me she had suffered bad neck pains for many years, and it felt as if she was now projecting them into me” (p. 116).

Just prior to a scheduled break in their clinical work together, Stone (2006) reported that his patient’s anxiety symptoms had increased significantly and that her two-year old daughter’s “head banging” had also worsened (p. 116). Stone observed that he, himself, had “started getting severe headaches during sessions that lasted while I wrote up notes, but went as soon as my next patient arrived” (p. 116). In contemplating the meaning of these physical symptoms, Stone wrote:

“Her daughter’s head banging increased and my head was banging too. I began to wonder how close and protective the family really was, how warm and loving her mother had been, and how well F had been cared for as a baby. I felt I was dealing with someone in deep despair who lacked containment, who was afraid of her destructiveness and who projected her depression and damage into those around her” (p. 116).

Precipitated by another scheduled break in the regularity of their meetings, Stone (2006) reported that his patient angrily decided to leave treatment prematurely. Stone’s own physical symptoms ceased upon her departure.

Most exceptional, I believe, in Stone’s (2006) descriptions of this last case were his passing revelations that he had, in fact, “resonated” with his patient’s pain—not simply in physical terms, but at a particularly poignant emotional level as well:

“These feelings [i.e., Stone’s sense that his patient’s anger represented her relatively rigid defense, or protection, against any insult that might arouse the unbearable pain, loss, sadness and fears associated with her mother’s death] resonated with my own experience of being sent away to boarding school at an early age. At the same time my mother would insist how close we all were as a family, resentfully covering feelings of anger and disappointment with my father, and envy of others who were more fortunate” (p. 117).

Although Stone did not explicitly address this particular point in his writing, I cannot help but wonder if—similar to Anderson’s (1998) brief mention of her own “dissociative tendencies” (p. 312) in relation to her clinical work with Ellen—there might not be an important clue here as to at least some of the potential contributions of *the therapist* in instances of somatosensory transmission. In other words, could the therapist’s own intense, unresolved emotional experiences—or, “dissociative

tendencies”—aroused in conjunction with their clinical work with certain patients increase the likelihood of somatosensory transmission?

To his considerable credit, Stone (2006) has written in greater detail than almost any other clinician-theorist on the subject of therapists' *own* potential contributions to somatosensory transmission phenomena. I will provide some elaboration of Stone's ideas in this regard below. However, the point I want to make here is that, once again, in spite of clear theoretical investments in considering the “two-person” contributions to these clinical occurrences, Stone's clinical depictions have, at least sometimes, fallen into familiar idiomatic and conceptual pitfalls that tend to obstruct, rather than facilitate, greater consideration of the therapist's own contributions to these episodes. This tendency was particularly evident, I think, in Stone's references (both implicit and explicit) to *projective identification* as the relevant mechanism in his experiences of embodied countertransference—as, for example, when he wrote: “[s]he then told me she had suffered bad neck pains for many years, and it felt as if she was now projecting them into me” (p. 116).

Of the Jungian clinician-theorists whose conceptualizations of somatosensory transmission phenomena I have reviewed, only Samuels' (2000) seems to have been concerned with the underlying *physiological* mechanisms by which these “embodied” transactions might take place between patients and therapists. And, even Samuels, in fact, only mentioned the role of underlying neurophysiology in mediating embodied countertransference responses somewhat tangentially when he clarified Jung's concept of archetypes as “biologically based” (p. 409), or as “psychosomatic structures” (p. 410) in arguing that Jungian clinicians tended to more readily incorporate patients' and therapists' bodily processes into their conceptual framework. Actually, when he more

explicitly elaborated his understanding of the underlying mechanisms responsible for embodied countertransference, Samuels demonstrated a marked preference for philosophy (over physiology):

“I have come to see that there is, in addition to projective identification, a sort of a priori linkage of analyst and patient with which we have to engage. Analyst and patient are embedded in something that is there always-already (to use a term from Continental philosophy). We can imagine analyst and patient as situated in a sort of social ether, with something solid connecting them (e.g., their joint citizenship), or analyst and patient as feeding off the same rhizome, the nutrient tube hidden below the earth on which the apparently separate stalks depend” (p. 412).

Samuels also described this particular aspect of analysts’ clinical work—that which might involve instances of embodied countertransference—as indicative of “the mystical and even shamanistic features of the experience of being an analyst” (p. 412).

Given the relative thoroughness of Stone’s (2006) investigation of embodied countertransference phenomena, it was somewhat surprising that he did not at any point attempt to address the question of *how* these clinical transactions might take place—in physical or physiological terms. It seems clear, however, based on Stone’s many references to Jung—for example, Jung’s (1946) diagrams depicting ‘the transference problem’—that Stone was content to assume that embodied countertransferences simply constituted a seldom-studied aspect of the unconscious-to-unconscious level of communication between patients and therapists that Jung (1946) had already sufficiently theorized.

On the contrary, however, Stone (2006) did rather methodically address the question of *when*, or under what clinical circumstances, embodied countertransferences were most likely to occur. While acknowledging that research in this area was still

extremely limited, Stone (2006) concluded that based on his review of the literature certain trends could be discerned in terms of the types of patients, as well as the types of conflicts—relevant to either patients or therapists—that were most likely to be involved in eliciting clinical instances of therapists’ embodied countertransference:

“The literature identifies certain recurring elements in the patient: the importance of narcissistic, borderline or psychotic elements; the existence of instinctual problems; having suffered bodily trauma; and traumatic events that have taken place in the pre-verbal period...The more they [patients] are trapped in an autistic pocket, or are at that moment in a borderline (or even psychotic) state, as distinct to a more conscious neurotic state, the more they will project their embodied feelings into the analyst. This could explain why the analyst might feel the countertransference in the body at one time and not at another” (p. 117-118).

Importantly, and unlike nearly all other references to somatosensory transmission phenomena, Stone also alluded to the potential contributions of therapists by stating, “[t]he importance of some of these aspects [i.e., referring to the above list of pathological considerations] being reflected in the analyst’s own personal experience is emphasized” (p. 117). Stone later clarified these remarks further by adding, “[w]here the analyst cannot verbalize his or her own intuitive feelings, that may be when the body picks them up” (p. 118). In other words, Stone is clearly proposing a more “two-person” conceptualization of the clinical variables responsible for somatosensory transmission phenomena.

Furthermore, Stone (2006) went so far as to formulate, on the basis of existing Jungian-based research into therapist typologies (i.e., Myers-Briggs Type Indicator test) and countertransference, the specific typology of therapists most likely to report experiences of embodied countertransference phenomena in their clinical work: “I

suggest that where analysts have introverted intuition as the superior function they are more likely to be open to countertransference responses in the body” (p. 118).

What became especially clear to me in the process of reviewing, in particular, the Jungian literature relevant to somatosensory transmissions, were the apparent challenges of describing and illustrating clinical instances of embodied countertransference in a way that adequately conveyed their “two-person” contributions and complexities. After all, this had seemingly been the case even for clinician-theorists whose general theoretical orientations and approaches to “bodily countertransference” (Wieland-Burston, 1987) and “embodied countertransference” (Samuels, 2000; Stone, 2006) were, at least at a conceptual level, relatively amenable to “two-person” psychotherapeutic considerations—evidenced, for example, by Wieland-Burston’s (1987) monitoring of her own “psychic reality” (p. 121) or Stone’s (2006) detailed conceptual assessments of therapist “typology” relevant to somatosensory transmission (p. 118).

As I considered these contradictions, I began to wonder more generally about the potentially *constraining* impact of certain inherited and relatively pervasive concepts in psychoanalysis—such as, for example, countertransferences and projective identifications—on the development of more complexly elaborated (“two-person”) clinical illustrations of somatosensory transmission phenomena within the psychotherapy literatures. Consider, for example, the case of the Jungian clinician-theorists whose work I reviewed.

Each of the Jungian analysts whose work I have reviewed referred to either countertransference or projective identification in qualifying their understandings of somatosensory transmissions. As we know, embedded within psychoanalytic

conceptualizations of these clinical mechanisms rests the implicit assumption that a therapist's particular contributions to a given clinical interaction may (with varying degrees of effort) be usefully *discerned* and *separated out*. These assumptions, I would argue, have led directly to characterizations (also evident within the Jungian literature relevant to somatosensory transmissions) of therapists' contributions to clinical exchanges in terms such as the "neurotic countertransference" (Racker, 1968; mentioned by Samuels, 2000; Stone, 2006; and, also by Lewis, 1984 in previous section), which, I would further argue, implicitly, if not explicitly, discourages further elaboration of the therapist's contributions other than within the confines of a therapist's supervision or personal analysis.

My hypothesis, therefore, is that the ongoing theoretical influences—or, "baggage"—of relatively "one-person" constructs such as countertransference and projective identification may, in part, explain some of the contradictions I have observed between relatively "two-person" theoretical conceptualizations and surprisingly "one-person" clinical depictions, seen especially clearly in writings on somatosensory transmissions by Jungian clinician-theorists. Nevertheless, this underscored for me the importance of constructing more "thoroughgoing two-person" (Wachtel, 2008) conceptualizations of somatosensory transmission phenomena, which might additionally serve as a reminder to clinicians of the ultimate *impossibility* of extricating ourselves from the profound ways in which we are constantly impacting, and being impacted by, our patients and their experience of the psychotherapy process.

Another relatively minor critique that I have of the Jungian literature relevant to somatosensory transmissions was its general tendency to characterize these clinical phenomena in rather esoteric or metaphysical terms. Schwartz-Salant (1986) wrote, for

example, that “two people can become aware of a state in which their subtle bodies are interacting. This is often felt as a change in the quality of space between them; it is experienced as energized and more material in nature” (p. 21-22). Field (1988) characterized embodied countertransference as “virtually *paranormal* in its capacity to bypass consciousness” (p. 512; emphasis added). Samuels (2000) highlighted the extent to which embodied countertransferences were indicative of the “mystical, or even shamanistic” (p. 412) functions of psychotherapists. Samuels later added, “I think we do a lot of our work in a low-grade *trance*” (p. 412; emphasis added).

I would not want to disagree with these evocative characterizations of somatosensory transmissions as much as express my concern that these ways of describing this category of clinical phenomena—especially, at the expense of more theoretically and empirically-grounded formulations—might actually contribute to obscuring these phenomena in the eyes of clinicians, making it, perhaps, even more difficult for members of the broader clinical community to attend to these potentials in their clinical work. To address this concern, I intend to devote significant space in the following chapter to examining potential sources of scientific support for somatosensory transmission phenomena—that is, based on recent advances within empirical disciplines such as interpersonal neurobiology and the cognitive, affective, and social neurosciences.

### Summary

In this chapter, I have attempted to better define a category of clinical phenomena—which I have labeled *somatosensory transmission phenomena*—involving psychotherapists’ own spontaneous, idiosyncratic physical sensations or physiological

symptoms occurring in meaningful relation to their clinical work with certain patients. I have also compiled, organized, and evaluated the existing range of conceptual and practical approaches to this category of clinical phenomena as reflected in the professional literatures of various psychotherapeutic orientations. In particular, I have highlighted what these varying perspectives may provide in terms of answers to important questions regarding somatosensory transmissions, including: 1) *how* these clinical transactions take place; 2) *when*, or under what clinical circumstances, they are most likely to occur; and 3) how they might be best conceptualized and utilized from a therapeutic perspective. Furthermore, wherever possible, I have provided detailed accounts and assessments of actual clinical instantiations of somatosensory transmission that have appeared in the psychotherapy literatures. In providing sometimes-extensive reviews of these clinical illustrations, my intentions were to: 1) reinforce our field's increased awareness of the existence and relative prevalence of this category of clinical phenomena, and 2) compile and provide some organization for what I view as a rich source of clinical data for the ongoing examination of somatosensory transmission phenomena and their broader implications for clinical theory and psychotherapy practice.

My overarching objective—and, in fact, the primary reason I have devoted such considerable space to documenting the existing psychotherapy literatures' various clinical and conceptual approaches to somatosensory transmissions—has been to demonstrate that this category of clinical phenomena does indeed *exist* and, yet, has clearly *not* been adequately considered nor sufficiently understood by our profession. This, I would argue, is evidenced by the relative isolation and disorganization that characterizes our professional literatures' various approaches to understanding and

working with these phenomena (e.g., the extensive list of competing terminologies), as well as the ongoing incredulity that can often characterize clinicians' perceptions regarding the potential importance of these phenomena to clinical work. Furthermore, I would argue that it is the current lack of an organizing theoretical framework from which to better evaluate our professional literatures' various depictions of somatosensory transmissions that, in essence, perpetuates this status quo.

In the chapters that follow, I will be attempting to construct an organizing theoretical framework capable of answering remaining questions about somatosensory transmission phenomena. The conceptual framework I have devised for better understanding this category of clinical phenomena is built upon what I would argue are the firmer grounds of empirical research into the neurophysiological underpinnings of empathy and, in particular, relatively automatic tendencies to perceive experiences of pain in others (Chapter 3), as well as recent theoretical advances in contemporary relational psychoanalysis (Chapter 4).

## CHAPTER THREE

Conceptualizing Somatosensory Transmission Phenomena from  
the Perspective of Recent Advances in Empirical Research

“The things we study in psychoanalysis are in fact the very same things that are studied by our colleagues in the neurological sciences . . . it is only our perceptual vantage points that are different. The underlying reality is the same” (Solms, 2003).

“A surge of oxytocin (such as accompanies orgasm and breastfeeding) is correlated with deep feelings of contentment and love. But it still depends on the actual social environment to make it relevant—putting oxytocin directly into rat brains doesn’t make them happier unless there are other rats to play with” (Carroll, 2006; p. 56).

In the preceding chapter, I reviewed and provided a much-needed organizational framework for the psychotherapy literature’s existing approaches to what I argue remains an ill-defined and insufficiently conceptualized category of clinical phenomena. In spite of many limitations in our discipline’s current understandings of somatosensory transmission phenomena—especially insofar as relevant scholarship in this area has largely neglected questions regarding how these clinical transactions might take place at neurophysiological levels, which particular clinical circumstances may be most likely to elicit them, or how they might best be conceptualized and utilized clinically—it has been, up until this point, my foremost objective to establish that there indeed *is* a coherent category of clinical phenomena in need of psychotherapists’ further consideration and examination.

In this chapter, I will begin to address my main research questions by focusing on what I see as one of the fundamental limitations of the existing psychotherapy literature relevant to somatosensory transmission phenomena—namely, that so few of

the clinician-theorists who have written about somatosensory transmission phenomena have referenced underlying neurophysiological processes or potentials in their clinical conceptualizations.

Recall, for example, Sands' (1997a) relatively explicit, but by no means atypical, perspective regarding her conceptualization of "experiencing through the other," which she characterized as transpiring "in some mysterious way that we *cannot begin to comprehend scientifically*" (p. 653; emphasis added). Even among those relatively few clinician-theorists whose writing on somatosensory transmissions did mention some neurophysiologically-based research, the primary emphasis in most of these cases was on the neurophysiological correlates of *patients'* affective experiences—for example, DaSilva's (1990) reference to the "long-established fact that emotions influence the contractions and the motility of the gastrointestinal tract...secretions of enzymes and coloration of the viscera due to alterations in the flow of blood" (p. 642), and Anderson's (1998) more general references to a "*psychobiological*" model (p. 292; emphasis added) that incorporates neuroscience-based understandings of the affect-regulatory and dissociative mechanisms involved in patients' psychological trauma<sup>19</sup>.

Throughout all of the previous chapter's references, I counted only *three* potential exceptions to this general rule—that is, I found just three references to neurophysiologically-based research that were clearly intended to bolster arguments regarding the underlying neurophysiological mechanisms responsible for some aspect of the somatosensory transmission. Two of these exceptions involved neurophysiologically-based research suggesting a potential for *non-conscious* influences

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<sup>19</sup> As was mentioned earlier, the extent to which Anderson's approach can be seen as *exclusively* focused on the underlying neurobiology of *patients'* affective functioning remains somewhat unclear, and, as was also stated previously, is at least partially mitigated by her relatively unelaborated reference to *her own* "dissociative tendencies" (p. 312).

upon the psychotherapy situation including certain visual and auditory stimuli—Knoblauch’s (2006) reference to LeDoux’s (2002) research indicating that sound as sensation (as opposed to semantic communication) is registered within the *listener’s* (i.e., therapist’s) amygdala before it is processed for representation and semantic processing in the cortical structures of the brain, which Knoblauch used to emphasize the importance of nonverbal aspects of the psychotherapy interaction including the prosody, rhythm, and tone of patients’ *and* therapists’ verbalizations; and, Orbach’s (2006) citation of Dimberg et al. (2000) in claiming that:

“[o]ur patients register in less than 1/1200<sup>th</sup> of a second their responses to our body just as *we* register *theirs*. Without conscious awareness we have sent out a visual acknowledgement of the impact of their corporeality on our own” (p. 97; emphasis added).

The only other exception was Zanicco’s (2006) relatively vague suggestion of a possible relationship between Stern’s (1985) neurophysiologically-informed concept of “amodal perception” (p. 47)—and, in particular, Stern’s suggestion of a related “mysterious” concept he called “amodal *representation*” (p. 51)—and Zanicco’s (2006) conceptualization of “sensory empathy” (p. 145) in work with adult psychotherapy patients. However, this supposed relationship was never more fully elaborated by Zanicco.

In contrast to these examples, I intend to thoroughly examine neuroscience-based experimental and conceptual literatures from several disciplines allied to psychotherapy—including interpersonal neurobiology and the cognitive, affective, and social neurosciences—that address the bidirectional communications that are the focus of this study. My intention is to extend my conceptualization of somatosensory

transmissions based on the previous chapter's clinical illustrations within an empirically-grounded, and primarily neuroscience-based, conceptual framework.

My underlying contention here is that more thoroughly examining somatosensory transmission phenomena on the basis of empirically-grounded perspectives—especially those afforded by contemporary understandings of the neurophysiologically-based processes and potentials associated with human empathic functioning—may offer particular advantages in overcoming existing impediments to constructing a more compelling and convincing theoretical framework that will enable clinicians to better understand—and to take more seriously—this category of clinical phenomena.

In spite of this chapter's more specific focus upon neurophysiology—a domain that psychotherapists might be especially likely to perceive as offering only a relatively narrow perspective on clinically-relevant phenomena (i.e., what could be characterized as *even less than* “one-person”)—I will attempt to emphasize, in particular, those developments in neuroscience-based research (e.g., interpersonal models of empathy based upon common-coding or shared neural representation of certain types of behavioral, affective, and, even, *sensory*-level phenomena whether experienced firsthand or observed in another person) that illuminate broader empirical foundations for the existence and underlying mechanisms of somatosensory transmission phenomena, while also lending further support to “thoroughgoing two-person” (Wachtel, 2008) metapsychological frameworks for the psychotherapy encounter more generally.

In terms of this investigation's main research questions, therefore, the present chapter will focus primarily on attempting to answer the first two of these questions—

that is, *how* somatosensory transmissions might take place, especially at neurophysiological levels of abstraction, and *which* particular clinical circumstances may facilitate such transactions—by examining the existing empirical evidence regarding underlying neurophysiological mechanisms associated with empathic functioning. However, by also emphasizing the general compatibilities of existing neuroscience-based research in these areas and “two-person” metapsychological frames, I am also intentionally laying the groundwork for a broader discussion in the following chapter of my final research question—that is, how psychotherapists might better conceptualize and work *clinically* with somatosensory transmission phenomena, especially from within a more “thoroughgoing two-person” psychotherapy framework (Wachtel, 2008).

By acknowledging at the outset that I will be emphasizing in this chapter those primarily-neuroscience-based empirical findings that, I believe, lend support to “two-person” conceptualizations of the psychotherapy encounter, I may, perhaps, be opening my project to a potential critique that has often been leveled against clinician-theorists who have attempted to integrate neuroscience-based models and neurophysiologically-based research findings into their clinical formulations—that is, the familiar charge of “cherry-picking” from amongst existing evidentiary sources. I would argue, however, that there are two relevant factors, with regard to this particular investigation, that mitigate the extent to which such a criticism may be warranted.

First of all, as this is neither an empirical nor an exclusively neuroscience-based dissertation, it is beyond the scope of this project’s objectives to experimentally validate my proposed conceptualizations or completely review the enormously voluminous neuroscience-based literatures that might potentially be relevant to my proposed

conceptualization of somatosensory transmission phenomena. In terms of my purposefully-circumscribed objectives—that is, introducing a suggestive body of empirical literature sufficiently consonant with the proposed conceptualization that (a) it will call clinicians’ attention to the phenomena and encourage them to notice and report further such phenomena, and (b) it will contribute to the appreciation that attention to these phenomena need not imply mystical or mysterious ways of thinking—I would argue that I am justified in presenting a somewhat more limited range of relevant neurophysiologically-based empirical and conceptual literatures.

Furthermore, by focusing in particular upon neurophysiologically-based models and empirical findings that support “two-person” perspectives in psychotherapy, I am in no way intending to imply that there could not also be significant neuroscience-based evidence used to support alternative psychotherapy frameworks (i.e., such as those that I have critiqued as “less-than two-person” in the previous chapter). Object relational perspectives, for example—that is, psychoanalytic conceptualizations that have tended to privilege the relative influences of patients’ internalized representations of “early” or “primitive” developmental experiences in precipitating clinically-relevant phenomena, including somatosensory transmissions (DaSilva, 1990; Wrye & Welles, 1989; 1993; 1994; Welles & Wrye, 1991; Wrye, 1993; 1996; 1998; Sands, 1997a; 1997b; 1998; Orbach, 2000; 2004; 2006)—might also locate empirical bases of support within developmental neuroscience-based research relevant to hippocampus maturity and its associated implications for primarily left-hemisphere-based representational capacities, which have been demonstrated to not fully mature until between the second and third years of life (Chiron, 1997). These findings, in other words, could be referenced in: 1) explaining the significant limitations adult patients necessarily display in verbally

representing and communicating their earliest experiences (i.e., before 2-3 years of age), and 2) providing an empirical basis of support for object relational conceptualizations of somatosensory transmission phenomena, which have emphasized the pathological contributions of early, bodily-based experiences with one's primary caretakers, and, as a consequence, have promoted the technical necessities of recognizing and elaborating patients' "early" or "primitive" experiences and memories within psychotherapy.

In what follows, I will be emphasizing various bodies of neurophysiologically-based research that, I believe, provide a foundation for understanding psychotherapy-related somatosensory transmissions and which do not require assuming that such transmissions are based in patients' (or therapists') earliest somatic memories. This particular emphasis is justified, I believe, on the basis of one of this project's overarching objectives—that is, to construct a relatively more compelling theoretical conceptualization of what I view as an inadequately conceptualized category of clinical phenomena. I will attempt to do this by evaluating somatosensory transmissions from a "thoroughgoing two-person" (Wachtel, 2008) conceptual framework that takes a "two-person" perspective into account at every conceivable level of analysis (i.e., physiological, neurophysiological, phenomenological, psychological, and interpersonal).

Lastly, I would again point out that those clinical perspectives that are most often associated with "two-person" conceptualizations within psychotherapy—for example, those representing contemporary relational psychoanalysis—are *not* typically suggesting that there are no significant reasons to consider the role of early-life developmental factors on our patients' later-life functioning and psychopathology. On the contrary, contemporary relational clinician-theorists simply point out that there

may be *other* potentially important contexts that should *also* be considered as clinically relevant (Wachtel, 2008; see also, Mitchell, 1984, with regard to “the developmental tilt”).

### Parsing the Individual Subcomponents of Somatosensory Transmission Phenomena

In order to further justify narrowing my review of the vast neuroscience-based literatures down to those empirically-based findings and formulations that I see as particularly relevant to enhancing clinicians’ awareness and understanding of the potential roles of somatosensory transmission phenomena in their work, I will briefly deconstruct my original definitional framework for this category of clinical phenomena. In other words, I want to attempt to identify the elementary constituents of somatosensory transmission phenomena that may prove most amenable to further evaluation in light of recent neurophysiologically-based research.

Earlier, I defined somatosensory transmission phenomena as those clinical instances in which psychotherapists experienced relatively spontaneous, idiosyncratic, physical sensations or bodily-based symptoms that occurred in meaningful relation to the psychotherapy process with certain individual patients. In an effort to better examine the particular boundaries, and, therefore, the theoretical implications, of this category of clinical phenomena, I further narrowed the focus of this investigation to relatively *extreme* instances of somatosensory transmission—of which, various clinical illustrations and formulations were presented and reviewed in the previous chapter.

On the basis of my preceding review of the existing psychotherapy literatures, I would suggest that the following elements constitute the most salient features of psychotherapy-related somatosensory transmission phenomena: 1) physical

sensation(s) occurring within the subjective awareness and bodily-based experience of the therapist, 2) subjective appraisal by the therapist that such physical sensation(s) are relatively idiosyncratic and, therefore, potentially clinically-relevant in the context of coinciding clinical variables including what is known regarding the patient's (and/or therapist's) psychosocial history, 3) formulation of the formerly non-conscious link(s) between the therapist's physical experience(s) and relatively specific aspects of the patient's (and/or patient's and therapist's) past or present psychosocial experiences, in particular, of disregulated affective functioning, and 4) clinical intervention(s) informed by the therapist's conceptualization of the clinical meaning(s) of these episodes—typically making use of the therapist's heightened empathic awareness of the patient's past or present affective experience as a result of the somatosensory transmission. In nearly all of the cases I compiled in the previous chapter, there was also at least some evidence of clinician-theorists' active consideration and conceptualization of the particular clinical variables that may have precipitated these episodes—which, once again, involved relatively *non-conscious, physical* manifestations of therapists' *empathic attunement* with patients' past or present *affective* experiences.

These various essential features of somatosensory transmission phenomena—that is, their relatively *non-conscious, physical, affectively-based, and interpersonal* characteristics—would all appear to be especially amenable to further examination in light of contemporary neuroscience-based models, in particular, those concerned with the neurophysiological underpinnings of human empathic functioning, its potentials, and limitations. I would furthermore suggest that existing research into the neurophysiological and neurocognitive mechanisms subserving human empathy

provides, perhaps, the most parsimonious means of constructing an empirical basis for psychotherapy-related somatosensory transmission phenomena.

In the following section, I provide a thorough review of the pertinent neurophysiologically-based investigations that have informed contemporary conceptualizations of human empathic functioning. In a subsequent section, I also review neuroscience-based research that has, more specifically, examined how human beings perceive others' experiences of physical pain—research, which I see as particularly relevant to informing conceptualizations of somatosensory transmission phenomena in psychotherapy. After all, idiosyncratic *physical pain* symptoms were among the most commonly cited manifestations of somatosensory transmission phenomena reported by clinician-theorists (see Jacobs, 1973; Thomson, 1980; Wieland-Burston, 1987; Ragan & Siedes, 1990; Silverman, 1991; Sands, 1997a; Trautmann-Voigt, 2001; Pozzi, 2003; Orbach, 2004; 2006; Sonntag, 2006; Stone, 2006).

### The Neuroscience of Empathy

Empirically-grounded, neurophysiologically-based conceptualizations of empathy—especially to the extent that this area of research has recently begun to illuminate non-conscious, neurophysiological mechanisms subserving human (as well as non-human) capacities for relatively involuntary attunement to the motor, affective, and even *sensory*-level experiences of others—would seem a rather obvious direction to turn in my efforts to enhance and bolster evolving conceptualizations of psychotherapy-related somatosensory transmissions. However, any attempt to review contemporary neurophysiologically-based understandings and conceptualizations related to human

empathy must begin with some acknowledgement of the general complexities involved in any investigation of this construct.

Preston and de Waal (2002) have noted, for example, that:

“The concept of empathy has had a difficult history, marked by disagreement and discrepancy. Although it has been studied for hundreds of years, with contributions from philosophy, theology, developmental psychology, social and personality psychology, ethology and neuroscience, the field suffers from a lack of consensus regarding the nature of the phenomenon” (p. 1).

Decety and Jackson (2004) have similarly argued that “only a multidisciplinary approach” (p. 71) can adequately address the need for improved conceptualizations of empathic functioning in human beings:

“Given the complexity of human empathy, many areas of research and theory are necessary for its understanding, including evolutionary psychology, comparative psychology, developmental science, social psychology, neuropsychology, and cognitive neuroscience” (p. 91).

In an effort to organize these many potentially complementary approaches to the study of empathy across a range of academic disciplines, Preston and de Waal (2002) proposed placing the contributions of various fields side-by-side along a *proximate-to-ultimate* continuum based upon Mayr (1961):

“[P]roximate causes govern the responses of the individual (and his organs) to immediate factors of the environment while ultimate causes are responsible for the evolution of the particular DNA code of information with which every individual of every species is endowed” (p. 1503).

Essentially, Preston and de Waal (2002) proposed that perspectives that emphasized, for example, the compatibilities of empathic functioning and relative reproductive

advantages associated with group cohesion (i.e., evolutionary psychological models) are best described in terms of the *ultimate* bases for empathy. Whereas, neuroscience-based perspectives focused on elaborating the underlying neurophysiological mechanisms—which manifest in individuals’ phenomenological experience of empathy at psychological and interpersonal levels of abstraction—represent relatively more *proximate* bases for empathy.

Interestingly, especially with regard to the current project’s suppositions<sup>20</sup>, Preston and de Waal (2002) argued that the lack of better proximate understandings of empathy has been one of the primary obstacles to better integration of the many competing, but potentially complementary, conceptual approaches to empathy:

“Much of the empathy literature focuses on whether empathy is an emotional or cognitive process and distinguishes empathy from emotional contagion, sympathy, and perspective taking...These distinctions are empirically based and help to categorize behavior...but they have been overemphasized to the point of distraction. This overemphasis on definition reflects the deeper problem that empathy lacks a proximate mechanism” (p. 2).

Even among existing, relatively *proximate*-level analyses of empathic functioning within the clinical and neurophysiologically-based literatures, different investigators

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<sup>20</sup> Based on my review of existing conceptualizations of somatosensory transmission phenomena within the psychotherapy literatures (see Chapter 2), I would suggest—not unlike Preston and de Waal’s (2002) characterization of the empathy-related literatures—that existing conceptualizations of somatosensory transmissions also suffer from inherent inconsistencies and incoherencies rooted, at least in part, in insufficient understandings of the *proximate* bases for these clinical phenomena. As such, I view one the primary benefits of elaborating *proximate*-level understandings of somatosensory transmissions as increasing clinicians’ general willingness to adapt their sets of clinical expectations in such a way as to increasingly accommodate the potential for therapeutically-relevant physical and physiological-level manifestations of the treatment process. Especially when dealing with a clinical category, such as somatosensory transmissions, that tends to challenge or defy therapists’ general set of clinical expectations and existing psychotherapeutic conceptualizations, there may be a particularly compelling need for better *proximate*-level analyses of the phenomena in question—that is, to bolster theoretical conceptualizations and, ultimately, promote adequate clinical consideration, of this range of clinical phenomena.

have tended to emphasize rather distinct subcomponents of empathy—often highlighting either its involuntary, vicarious, and affective features (see emphasis on ‘bottom-up processing’ in Preston & de Waal, 2002), or, its intentional, perspective-taking, and cognitive aspects (see emphasis on ‘top-down processing’ in Decety & Jackson, 2004; 2006). For my purposes—that is, promoting better understanding of the underlying potentials and limitations associated with human empathic functioning that may also be pertinent to certain involuntary, affectively-based, somatosensory-level transmissions in psychotherapy—I intend to focus throughout much of the remainder of this chapter on the existing neurophysiologically-based evidence that supports such a ‘bottom-up processing’ perspective on human empathy, or, what Decety and Jackson (2006) defined as “the *automatic* tendency to mimic the expressions of others” (p. 54; emphasis added).

Empirical investigations that have adopted such a *bottom-up*-processing perspective on the study of empathy have tended to measure particular subjects’ autonomic arousal and other neurophysiological manifestations of somatosensory activity as subjects have engaged in observing others’ actions, experiences, and expressions. Research conducted from this particular vantage point, therefore, may be especially relevant to evolving conceptualizations of psychotherapy-related somatosensory transmissions.

Various models have been proposed to account for the relatively automatic, involuntary neurophysiological mechanisms underlying human empathic functioning. I will focus primarily on one such model—Preston and de Waal’s (2002) *perception-action* model of empathy—which has been extensively grounded in empirical research.

I have specifically elected to *not* focus significant attention on what may be,

especially for psychoanalytically-oriented clinicians, a relatively more familiar neurophysiologically-based model of empathy—that is, Gallese’s concept of *embodied simulation* (2003; 2005; 2006; 2007; 2009). First of all, Gallese’s concept of *embodied simulation* is almost entirely consistent with a *perception-action* model of empathy (Preston & de Waal, 2002). The only relatively minor differences appear to be Gallese’s overarching emphasis on mirror-neuron-based research in primates (Rizzolatti et al., 1995), along with various extensions and extrapolations of this primate research toward the identification of “mirroring mechanisms” in humans (Gallese, 2009; p. 519; see also, Carr et al., 2003). In fact, my review of Gallese’s extensive writings on *embodied simulation*—especially, insofar as this concept is relevant, for example, to empathic pain perception—reveals that Gallese, in fact, mentions almost identical literatures to those cited earlier by reviewers espousing a *perception-action* model of empathy (Preston & de Waal, 2002; Meltzoff & Decety, 2003; Decety & Jackson, 2004; 2006). Finally, it has been my impression that, in comparison to advocates of the *perception-action* model, Gallese’s concept of *embodied simulation*—although clearly grounded in important empirical research—represents, especially in its tone and general emphases (e.g., focus upon relatively subtle phenomenological features of human empathic functioning), a more philosophical and, therefore, somewhat more speculative (i.e., not primarily empirically-based) conceptual perspective that is more reliant upon forward-leaning extrapolations of existing empirical research.

### *The Perception-Action Model of Empathy*

In addition to designating a continuum for organizing earlier investigations of empathy ranging from its proximate to ultimate bases, Preston and de Waal (2002) proposed what they argued was an empirically-supported model—a *perception-action* model of empathy—to specifically describe *proximate*-level neurophysiological processes associated with empathy in terms that could be readily integrated with *ultimate*-level analyses of empathy focused, for example, upon the evolutionary advantages of empathic functioning. Preston and de Waal’s model emphasized *bottom-up* processing channels of the human nervous system, which “automatically” initiate responses—that is, *autonomic* and *somatic*-level changes (i.e., prepared-action potentials) within one’s own neuroanatomy—to perceived emotional and physical states of others:

“A Perception-Action Model of empathy specifically states that attended perception of the object’s state *automatically* activates the subject’s corresponding representations of the state, situation, and object, and that activation of these representations *automatically* primes or generates the associated autonomic and somatic responses, unless inhibited” (p. 4; emphasis added).

In essence, Preston and de Waal’s (2002) model can be understood as enlisting “a highly adaptive nervous system organization” (p. 6) based upon the “perception-action mechanism” (p. 4)—that is, the *common coding* of perceptions and actions (as well as, perceptions and certain basic affective experiences in humans) which is believed to characterize the nervous systems of all vertebrate species (Prinz, 1997;

Prinz & Hommel, 2002; Sperry, 1952)—in order to better explain the phenomenology of human empathy:

“According to a perception-action model, the evolution of a perception-action organization of the nervous system was the precursor to empathy; this organization is adaptive for much more basic reasons than helping behavior. This organization adaptively generates responses from perception, using *the same representations to code objects and their associated actions*. This is computationally more efficient in terms of the way the information is processed and the storage space it requires. It also facilitates appropriate responses to the environment (like ducking away from a projectile or attacker). Such behavioral tendencies are the keystone of reproductive success” (p. 6; emphasis added).

According to Preston and de Waal (2002), these neurophysiological-level responses to observing (or, even imagining in some cases) the experiences and expressions of others—that is, relatively patterned activations of the observer’s own corresponding neural networks, also known as neural “representations” (p. 5)—tend to fall into two main categories: those that orient subjects to respond “*with the object* (matching responses as with distress to distress or joy to joy)” (p. 5; italics from original), or, “*to the object* (instrumental responses as with consolation to distress or fear to anger)” (p. 5; italics from original). Not coincidentally, I would argue, these categories of empathic responses correspond precisely to Racker’s (1968) psychoanalytic designations of *concordant* and *complementary* countertransferences relevant to psychotherapy.

It is important to note in this regard that this parallel between neurophysiologically-based research with regard to empathic functioning and psychoanalytic formulations with regard to countertransferences highlights the extent to which clinicians’ responses to their patients appear to fall into relatively expectable

categories based on underlying neurophysiological potentials associated with human empathic functioning. It is also noteworthy that these non-conscious, neurophysiologically-mediated activations (i.e., action-potentials) are *not* simply automated “mimicking” or “matching” responses (i.e., concordant responses *only*), but, as will be discussed further, emerge even within early infancy as *contextually-dependent* responses (i.e., concordant *and* complementary) based upon increasingly developmentally-sophisticated perceptions of the *internal* states of others (see, for example, “social referencing” literature discussed below).

In further elaborating their model, Preston and de Waal (2002) also highlighted several factors that they argued were potentially involved in *inhibiting* these otherwise-activated neurophysiological potentials associated with empathy—for example, cognitive developmental factors such as “increased prefrontal functioning, increased segregation of self and other representations, and learned display rules” (p. 5). Additionally, the authors stated that a subject’s “attention can be preemptively allocated when an automatic response is undesirable (determined by current goals and the ability to help)” (p. 5). They stressed, however, that even in such cases of inhibition, “*covert* responses may still occur, even outside of awareness” (p. 5; emphasis added).

In other words, it is not inconsistent with Preston and de Waal’s (2002) perception-action model of empathy that *top-down* processing features of the nervous system—namely, executive-functioning capabilities—would, especially in more mature subjects, be capable of inhibiting otherwise-activated neurophysiological potentials toward more-complete empathic responses. In fact, Preston and de Waal made a point of comparing their conceptualization of empathy-related processes to other relatively “automatic” neurophysiologically-mediated mechanisms:

“[b]reathing is most of the time an involuntary, automatic process...Yet, we do have control over it, can deliberately speed up breathing, regulate it, and even temporarily stop it till we are blue in the face” (p. 54).

Notwithstanding these exceptions, however, the clear emphasis and, perhaps, the most fundamental aspect of Preston and de Waal’s (2002) model of empathy remains its proposal of relatively pervasive, automatic neurophysiological mechanisms that promote empathic responses to the observed or, otherwise, perceived experiences and expressions of others. Furthermore, even when empathy is inhibited by top-down processing, Preston and de Waal clearly argued that the automaticity of perception-action mechanisms vis-à-vis empathic potentials may result in at least some “covert” neurophysiological activity in the observer. They stated that: “[a]ll forms of empathy involve some level of emotional contagion and personal distress (if only at the representational<sup>21</sup> level)” (p. 4).

Importantly, especially insofar as I am attempting to identify empirically-based support for evolving conceptualizations of somatosensory transmission phenomena in psychotherapy, Decety and Jackson (2004; 2006)—whose social-neuroscience approach to empathy has also integrated and emphasized Preston and de Waal’s (2002) perception-action model of empathy—have noted that:

“[a]bundant evidence from behavioral and cognitive studies and functional-imaging experiments has indicated that individuals come to understand the emotional and affective states expressed by others with the help of the neural architecture that produces such states in themselves” (Decety & Jackson, 2006; p. 54).

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<sup>21</sup> “Representations” are defined by Preston and de Waal (2002) as “parallel distributed patterns of activation that reliably fire in response to a given stimulus” (p. 5).

Decety and Jackson (2004; 2006) have similarly defined the perception-action model of empathy as “*affective sharing* between the self and other based on perception-action coupling that lead to shared representations” (2004; p. 75; emphasis added), or, more simply, as a “covert mimicry process” (2006; p. 55). Decety & Jackson (2004; 2006) have also provided several recent reviews of the empirical literatures supporting this particular aspect (i.e., “perception-action” or “shared representations” mechanisms) of their own elaborated model of empathy (to be discussed further below).

There are several categories of empirical research that have provided converging supportive evidence for a perception-action model of empathy—including cognitive science, developmental science, neuroscience and neuroimaging, and brain lesion or functional impairment studies (Preston & de Waal, 2002; Meltzoff & Decety, 2003; Decety & Jackson, 2004; 2006; Hatfield et al., 2011). In addition to differentiating the empirical research literatures based on particular disciplines and their preferred methodologies, I have also intentionally arranged the following presentation of empirical bases of support for the perception-action model of empathy in such a way as to clearly differentiate *infant* research from additional empirical evidence involving *adult* subjects, whether emanating from behavioral, cognitive, or neuroscience-based investigations. I make this additional distinction in order to explicitly highlight the extent to which these relatively innate, non-conscious, neurophysiologically-mediated activations associated with early empathic functioning—as evidenced, for example, by infants’ imitation-related behaviors (Meltzoff & Moore, 1997) and related affective-resonance components of early empathic functioning (Trevarthen, 1979; Stern, 1985;

Hatfield et al., 1994; 2011)—*continue* to be a relevant aspect of human empathic functioning *beyond* infancy and, in fact, throughout the lifespan.

#### Empirical Research with Infants that Supports a Perception-Action Model of Empathy

The most substantial body of empirical support for a perception-action-based model of empathy comes from developmental science and developmental neuroscience research literatures. Decety and Jackson (2004) have argued, in fact, that these bodies of early development-based evidence supporting the perception-action model of empathy—and, its “affective sharing” (p. 75) or “shared representations mechanism” (p. 85)—suggests that these automatic neurophysiological processes associated with empathic functioning are effectively “hardwired” (p. 71). That is, these automatic neurophysiologically-mediated shared activations innately predispose infants to begin seeking-out certain socially-relevant stimuli, such as the facial expressions of others, as early as birth. Furthermore, such socially-relevant experiences, in turn, begin to bind the infant to a social community, and eventually, if not immediately, serve as an important basis for determining the intentions and internal affective states of important others (see Meltzoff & Decety, 2003, with regard to these early foundations of “theory of mind”).

Citing, for example, an extensive review of developmental research paradigms that have measured newborn infants’ abilities to engage in imitation-related behaviors in response to a range of physical movements and, in particular, facial expressions initiated by adults (Meltzoff & Decety, 2003), Decety and Jackson (2004) concluded that these investigations involving neonates provide “the best evidence for this perception-action coupling functioning right from birth” (p. 76). In other words, the fact that many

independent investigations have repeatedly found that human neonates, as young as 42-*minutes*-old (Meltzoff & Moore, 1983), are capable of discriminating between and spontaneously imitating a range of physical gestures performed by adults including lip protrusions, mouth openings, tongue protrusions, and certain finger movements (Meltzoff & Moore, 1977; 1983; 1989; see Meltzoff & Moore, 1997 for a review), indicates “clear behavioral evidence for an *innate* link between the perception and production of human acts” (Meltzoff & Decety, 2003; p. 493; italics from original).

Importantly, this same body of imitation-based research involving infants, according to Decety and Jackson (2004), also confirms that such imitation-related behaviors “cannot be explained solely by a simple motor resonance behavior mechanism” (p. 76) and, therefore, must be “*representationally* mediated...because the infant’s response need not be temporally coupled to the stimulus and is not compulsory” (p. 75; emphasis added). In other words, on the basis of certain specific features of infants’ imitation-related behaviors—namely, their corresponding-but-also-contextually-dependent and constantly-evolving characteristics—developmental researchers have effectively demonstrated that even newborn infants possess what Preston and de Waal (2002) and Decety and Jackson (2004; 2006) have argued constitutes the rudiments of empathic functioning—that is, relatively automatic neurophysiologically-mediated activations (i.e., as evidenced by imitative motor behaviors, in the case of neonates) in response to their perception of a range of potentially socially-relevant behaviors of other human beings. As Meltzoff and Decety (2003) have noted:

“Our ability to imitate others’ actions holds the key to our understanding what it is for others to be like us and for us to be like them...Through imitating others,

the human young come to understand that others not only share behavioral states, but are 'like me' in deeper ways as well. This propels the human young on the developmental trajectory of developing an understanding of other minds" (p. 491).

Evidence that these relatively automatic, neurophysiologically-mediated activations—as indicated by imitation-related behaviors in neonates—are, in fact, constantly and dynamically evolving in the direction of greater empathic sophistication (i.e., are increasingly capable of triggering contextually-appropriate *concordant* and, eventually, *complementary* behavioral responses) can be extrapolated from the following series of developmental investigations.

Legerstee (1991) found that five-to-eight-week-old infants selectively mimicked facial expressions (e.g., tongue protrusions) of other human beings over similar actions performed by non-human objects. One-year-old infants have been found to initiate comfort-seeking behaviors in response to witnessing what is perceived to be another person's injury (Hoffman, 1990). By two years, infants have been found to exhibit pro-social behaviors in response to the perceived distress of others—for example, attempting to comprehend others' distress and respond by helping, sharing or comforting, especially in relation to their mothers but also extending to others (Zahn-Waxler et al., 1992).

Decety and Jackson (2004) have interpreted these findings to suggest that infants, as young as two-months old, "implicitly understand other people to be like them" (Decety & Jackson, 2004; p. 76)—and, that this implicit understanding of others gradually becomes elaborated throughout infancy, constituting a particularly adaptive developmental achievement rooted in innate, neurophysiologically-mediated empathic processing potentials.

The particular relevance of these, primarily *motor* or *behavioral*, investigations of early empathic processing (as opposed to investigations that more specifically focus upon the *affective* components of empathy) to understanding more mature empathy becomes clearer when one considers complementary sources of developmental research that, in addition to documenting infants' natural abilities to imitate others' motor behaviors, especially in terms of facial expressions, have also highlighted infants' relatively innate capacities for emotional resonance (see Hoffmann, 2000). Citing the work of Trevarthen (1979) and Stern (1985), who documented moments of "intersubjective sympathy" and "affective synchrony" respectively within mother-infant dyads, Decety and Jackson (2004) argued that there is also significant evidence to support the contention that infants are "innately predisposed to be sensitive and responsive to the *subjective states* of other people" (p. 77; emphasis added).

Investigators have, for example, repeatedly found evidence that human infants will orient themselves to the distress signals of other infants, often responding with their own distress cries from a very early age (Simner, 1971; Sagi & Hoffman, 1976; Ungerer, 1990; Zahn-Waxler & Radke-Yarrow, 1982). Importantly, the extent to which infants tend to exhibit concordant responses to other infants' cries depends upon the relative age and authenticity of the perceived crier. In other words, even one-day-old infants have been found to cry more reactively in relation to actual crying (versus synthetically-produced recordings of an infant crying) and in response to same-aged newborn infants (versus the actual cries of 5-month-old infants) (Simner, 1971). These distinctions, once again, highlight the extent to which even very young infants can be understood as already discriminating between the particular contextual characteristics of socially-relevant stimuli in ways that correspond to *their own* neurophysiological

activation patterns and potentials representing a rudimentary awareness of the relationship between their own and others' internal affective states.

Neurophysiologically-based research involving infants has also been cited to suggest that a perception-action or shared representations mechanism governs the perception and processing of the perceived *affective* states of others. Davidson and Fox (1982), for example, found that infants shown videotapes of a smiling actress exhibited EEG activation patterns characteristic of positive affect. However, when shown a crying actress, infants' EEG activation patterns matched those of negative affect. Beebe (1997) has interpreted these results to indicate that "[t]he infant cannot escape the *emotion* of the partner as reflected on the partner's face" (p. 143; emphasis added).

The particular importance of being able to not only imitate—or, in the case of affective experiences, resonate with—but also successfully discriminate between, and, eventually, be able to exhibit contextually-appropriate affective and behavioral responses to the perceived behaviors and emotional expressions of others is further illustrated by the following series of developmental research findings. Beyond emotional resonance, infants are also able to distinguish between an ever-increasing range of facial expressions—especially, those representing basic emotions.

Within the first year, infants develop the ability to not only recognize and differentiate, but to also interpret distinct facial expressions based on their communicative meanings. Field et al. (1982), for example, found that 36-hour-old infants were not only able to imitate but were also able to discriminate between happy, sad, and surprised facial expressions—as determined by both the infants' own corresponding facial expressions and particular patterns of diminishing and renewed visual fixations in response to viewing pictures of these different facial expressions. By

about the age of 10 months, infants have been found to not only be able to discriminate between various facial expressions, but are also able to interpret these expressions as communicative, for example, in terms of evaluating uncertain or ambiguous situations (Campos & Stenberg, 1981; Rosen et al., 1992). One-year-old infants will *socially-reference* the face of their mothers when encountering ambiguous stimuli such as an unknown toy (Feinman, 1982; Klinnert et al., 1983). The most well-known example of this type of research finding comes from an experiment involving infants approaching a “visual cliff” (i.e., a transparent surface with an attractive toy placed at the opposite side from the infant), in which it was observed that infants’ behavioral decision—to cross or not—was determined by their referencing of the mother’s facial expression (Sorce & Emde, 1981; Klinnert et al., 1986). Once again, by two-years of age, infants will tend to exhibit pro-social concern—as manifested in helping, sharing, or comforting behaviors—in response to others’ perceived distress (i.e., distressed facial expressions) (Zahn-Waxler et al., 1992).

In summary, the preceding behavioral and developmental neuroscience-based investigations with infants provide abundant empirical evidence that supports a perception-action model of empathy (Preston & de Waal, 2002)—which presupposes that the perceived actions and emotional expressions of others are automatically encoded at neurophysiological levels via the same neural networks and neural activation patterns (i.e., “representations”) that would be utilized for similar *firsthand* experiences. Furthermore, this research indicates that both the *motor* and *affective* components of empathic functioning appear to be intact from birth and tend to operate in a relatively “automatic” manner—in order, as has been proposed by Preston and de Waal (2002), to predispose infants’ immediate attention to certain social and

affectively-charged aspects of their early environment (e.g., caregivers' facial expressions) and to facilitate their gradual development in terms of mature social cognition.

### Empirical Research with Adults that Supports a Perception-Action Model of Empathy

It is tempting to interpret the fact that such a significant proportion of the existing empirical evidence for non-conscious, affectively-encoded, and neurophysiologically-mediated components of empathic functioning comes from infant research as, perhaps, additional support for object relational conceptualizations of somatosensory transmissions (e.g., Wrye & Welles, 1989; 1993; 1994; DaSilva, 1990; Welles & Wrye, 1991; Sands, 1997a; 1997b; 1998; Orbach, 2000; 2004; 2006). Preston and de Waal (2002), in fact, noted that many researchers in the area of empathy “have proposed that emotional contagion exists *to facilitate the mother-infant bond* (Darwin 1998/1872; McDougall 1908/1923; Plutchik 1987)” (Preston & de Waal, 2002; p. 6; emphasis added). A corollary assumption, therefore, of this viewpoint might be that the neurophysiologically-mediated benefits of “emotional contagion” are relatively *limited* to the very early developmental needs of the infant. In this section, however, I highlight complementary behavioral and neuroscience-based research that has been conducted with *adult* participants, which indicates that, although cognitive components of empathy (i.e., *top-down* mechanisms associated with regulating the *bottom-up* components of empathic processing) gradually develop and exert their influence over the automaticity of motor and affective mimicry components of empathy, the relatively non-conscious, physical, and neurophysiologically-mediated aspects of empathy do continue to function well beyond infancy.

In a rather ingeniously designed study from experimental psychology, which was intended to test the more general computational aspects of the perception-action processing hypothesis—that is, the human brain’s *common coding* (i.e., shared neural activation patterns) of both enacted and perceived behaviors—Müsseler and Hommel (1997) had adult participants rapidly reproduce visually-presented sequences of four non-semantic symbols by typing them into a keyboard (e.g., “> < > <”). Once sufficiently proficient at this simple reproduction-based task, participants were presented with an additional symbol (also presented visually), which was to be appended at the end of the initial sequence. Importantly, this additional symbol was not presented (i.e., not visible) until precisely the moment that participants were engaged in typing the second of the four symbols from the original sequence. Results indicated that when these two symbols—the second symbol from the original sequence (i.e., “enacted” stimulus) and the newly introduced symbol (i.e., “perceived” stimulus)—were identical, significant delays were recorded in subjects’ task-related response times. In other words, reductions in response times were observed when participants were simultaneously engaged in both perception- *and* action-based processing of the *same* non-semantic stimulus. These results effectively demonstrated the processing-related limitations that would be anticipated by a perception-action or *common-coding* mechanism—whereby, the human brain must utilize the same neurophysiological networks and activation sequences to represent *both* perceptions and actions.

As described in the previous section, a significant portion of the evidence for a perception-action model of human empathy has been based on studies involving infants’ capacities for imitation, as well as affective resonance. However, infants are not the only human subjects that have been found to engage in relatively automatic (i.e.,

non-conscious) imitation-related behaviors. Additional evidence supporting a perception-action mechanism underlying human empathy comes from behavioral investigations involving adult subjects, which have documented significant tendencies toward unintentional and largely non-conscious imitation of body posture and physical mannerisms (LaFrance, 1979; 1982; Chartrand & Bargh, 1999), facial expressions (Vaughan & Lanzetta, 1980; Dimberg, 1982; Zajonc et al., 1987; Hsee et al., 1990; Dimberg et al., 2000), tone of voice (Neumann & Strack, 2000), rate of speech (Webb, 1969; 1972), speech rhythms (Cappella & Panalp, 1981), accents (Giles & Powesland, 1975), as well as, certain emotional expressions such as laughter (Young & Frye, 1966). Chartrand and Bargh (1999), who labeled this general phenomenon “the chameleon effect,” have demonstrated that these tendencies toward imitation occur even between strangers—thus, leading these authors to propose that this pervasive imitation-related effect should serve as compelling evidence of a perception-action mechanism subserving human empathy:

“[T]he chameleon effect is the mechanism behind mimicry and behavioral coordination and thereby is the source of the observed smoother social interaction and interpersonal bonding produced by the (non-conscious) mimicry...[W]e hypothesize that the perception of another's behavior (be it facial expression, body posture, mannerism, etc.) increases the tendency for the perceiver to behave in a similar manner, and that this is an entirely passive and non-conscious phenomenon. Thus, we argue that the perception of another's behavior does not require or depend on the perceiver having any interpersonal goal, such as ingratiation, toward the person being perceived, nor does perception require the two interaction partners to have an already established relationship (i.e., a preexisting state of rapport). Unlike the prior correlational accounts of mimicry and rapport, we posit a directional causal sequence: Perception causes similar behavior, and the perception of the similar behavior on the part of the other creates shared feelings of empathy and rapport. In

short, the widely documented automatic link between perception and behavior exists, at least in part, as a kind of natural "social glue" that produces empathic understanding and even greater liking between people, without their having to intend or try to have this happen" (p. 897).

More recently, Harrison et al. (2006) found additional evidence of relatively automatic, non-conscious mimicry-related responses, in particular, to affectively meaningful stimuli such as others' facial expressions. They noted corresponding changes in involuntary pupillary dilations when healthy participants viewed photographs of sad faces with varying pupil sizes.

Once again, the particular relevance of these primarily behavioral investigations for better illuminating the underlying neurophysiological mechanisms involved in human empathy becomes clearer when one focuses more specifically on the *affective* changes that often accompany such imitation-related behaviors. Several investigations, for example, have demonstrated that specific physiological changes—as measured by heart rate, skin conductance, and finger temperature—normally associated with the experience of particular affective states such as anger, disgust, fear, happiness, sadness, and surprise can be *induced* in subjects by simply having them make facial expressions associated with these affective states (Ekman et al., 1983; Levenson et al., 1990; Ekman & Davidson, 1993). In other words, as these investigators concluded, merely producing a particular facial expression generates changes in the autonomic nervous system associated with actually *feeling* the corresponding emotion. These findings, coupled with those of mimicry-based investigations mentioned earlier, have been used to explain the relatively non-conscious, physiological components of empathic functioning, which Hatfield et al. (1994; 2011) labeled "emotional contagion."

Over the past decade, neuroscience-based research has also begun to provide

specific support for these perception-action and perception-affect coupling mechanisms believed to underlie empathic functioning in humans. Both Preston and de Waal (2002) and Decety and Jackson (2004) have highlighted, for example, the discovery of “mirror neurons” (Rizzolatti, et al., 1995) and their particular relevance (as well as, limitations) with regard to understanding human empathy. Essentially, mirror neurons are single neurons found in the pre-motor cortex of rhesus macaque monkeys; these specialized neurons have been found to fire during goal-directed behaviors *and* when observing either other monkeys or human investigators, engaged in similar goal-directed behaviors like reaching for or grasping an object (Rizzolatti et al., 2001).

Mirror neurons, therefore, would appear to further validate the perception-action model of empathy by demonstrating its functional imperative—that is, the *common coding* of one’s own actions *and* the perceived actions of others—at a *cellular* level. However, as many investigators have also noted, there is not yet substantial empirical evidence of such mirror neurons in the human brain (Preston & de Waal, 2002; Decety & Jackson, 2004). This is due to the fact that the types of investigations conducted with monkeys—involving brain-implanted electrodes—cannot be safely or ethically performed with humans. Furthermore, many investigators have also highlighted the fact that mirror neurons, even if they were eventually to be found within human brain regions analogous to the pre-motor cortex of rhesus macaques, cannot in-and-of-themselves account for the complex phenomenology of human empathy. Preston and de Waal (2002) stated, for example, that:

“While mirror neurons alone cannot produce empathy at any level, they do provide concrete cellular evidence for the shared representations of perception and action” (p. 10).

Similarly, Decety and Jackson (2004) have added that, despite our current inability to translate mirror neuron-based research directly to humans:

“[s]uch a shared motor-representations mechanism offers an interesting foundation for intersubjectivity because it provides a functional bridge between first-person information and third-person information (Decety & Sommerville, 2003). But as suggested by our model, this mechanism is necessary *but not sufficient* for empathic understanding” (p. 77; emphasis added).

In spite of limitations in researchers’ current abilities to definitively identify mirror neurons, *per se*—and their hallmark activations in relation to both action execution and the perceived actions of others—within the human brain, a neurocognitive model of the *motor* and *affective* components of human empathy has, indeed, begun to materialize.

Fadiga et al. (1995) were among the first to identify evidence of a potential human analogue to the “mirroring” system found in monkeys—that is, neurophysiologically-mediated motor involvement in relation to witnessing goal-directed actions performed by others. These researchers had human (i.e., adult) participants watch while an experimenter engaged in a range of hand gestures including, for example, grasping motions, during which transcranial magnetic stimulation (TMS) was utilized to record measurements of corticospinal excitability in relation to participants’ hand muscles. Results indicated significant levels of excitability for the specific muscles that participants *would have needed* to imitate the hand gestures they were observing. Similar corticospinal activations have been obtained in relation to having subjects simply *imagine* their own or others’ hand gestures (Clark et al., 2003). Decety and Jackson (2004) have also highlighted the “hierarchical” effect (p.

77) that has become evident on the basis of these TMS-based studies—that is, the intensity with which participants' own motor excitations were activated appears to be determined hierarchically based on their relative proximity to actually performing the behaviors themselves. Measurements of muscular excitation were, naturally, more intense when actually *performing* a certain behavior, but remained moderately intense when merely *witnessing* another person engaged in a particular behavior, and were relatively less intense, but still significant in comparison to control conditions, when only *imagining* oneself or another person performing a particular gesture. Nevertheless, these investigations provided important initial evidence of a corresponding neurophysiologically-mediated “mirroring system” in human beings (Decety & Jackson, 2004). Furthermore, from the perspective of affectively-induced behaviors, such as facial expressions, these subtle imitation-related behaviors and their corresponding neurophysiological activations suggest especially important implications for understanding human empathic functioning. Unfortunately, what this research (Fadiga et al., 1995; Clark et al., 2003) was not able to provide was more specific evidence of the particular brain regions involved—that is, which part(s) of the human brain were, in fact, functioning analogously to the mirror neurons discovered earlier in monkeys.

More recently, neuroscience-based investigations have begun to identify common activations within particular neural *networks* (as opposed to individual neurons) that are associated with processing first-person *imitative* motor behaviors (Decety et al., 1997; 2002; Iacoboni et al., 1999; Carr et al., 2003), first-person *imagined* motor behaviors (Decety et al., 1994; Hari et al., 1998), as well as either observing or imagining *third-person* motor behaviors as performed by others (Blakemore & Decety, 2001; Ruby & Decety, 2001). The common neural network activated by each of the

above scenarios, according to Decety and Jackson (2004), involves overlapping areas of “the pre-motor and posterior parietal cortex” (p. 77).

In a similar investigation, which specifically involved imitation and observation of *facial expressions*—that is, the observation of increasingly affectively-charged motor behavior—Carr et al. (2003) documented the additional corresponding involvement of the anterior insula and amygdala in both imitation and observation conditions. With particular relevance to emerging conceptualizations of human empathy, Carr et al. proposed that it was by means of the human “mirroring” system’s bilateral connections to the insula—and, therefore, connections to the limbic regions of the brain including the amygdala—that an emotional valence could become associated with particular observed actions (e.g., facial expressions) and integrated with the observer’s relatively automatic, non-conscious response (i.e., neural activation patterns that promote tendencies toward *affective* imitation or “resonance”).

On the basis of this research, Blair (2005) summarized an emerging, albeit somewhat speculative, neurophysiological model illustrating all of these relatively non-conscious aspects of human empathic functioning—that is, its relatively automatic *motor* and *affective* components—as follows:

“[T]he perception of another individual’s state activates the observer’s corresponding representations, which in turn activate somatic and autonomic responses. At the anatomical level (see Carr et al., 2003), the suggestion is that the superior temporal cortex (STC) codes an early visual description of the action and sends this information to posterior parietal mirror neurons which code the precise kinesthetic aspect of the movement and then send this information to inferior frontal (BA 44/45) mirror neurons. The inferior frontal mirror neurons are thought to code the goal of the action. Connections from superior temporal, parietal, and inferior frontal cortices to the insula are

thought to allow this representational information to generate emotional responses through limbic areas (Carr et al., 2003)” (p. 700).

Functional impairment and brain lesion-based investigations have also yielded significant neurophysiological evidence of the perception-action and perception-affect couplings that Preston and de Waal (2002) proposed as subserving human empathy. For instance, several investigations involving subjects with similarly-localized brain lesions or neural atrophy have documented patterns of paired deficits in both the production *and* recognition of facial expressions (as well as in the direct experience of corresponding emotional states).

Jacobs et al. (1995) reported that patients with Parkinson’s-related atrophy to the basal ganglia—or, more specifically, “the loss of dopaminergic neurons projecting from the substantia nigra pars compacta to the neostriatum” (p. 1697)—exhibit significant deficits in both *expressing* emotions via facial expressions and *perceiving* the emotional states of others based on their facial expressions. Lending further support to the perception-action model of human empathy, Jacobs et al. noted that these Parkinson’s patients were *not* impaired on a control task involving *object* recognition—as opposed to *facial* recognition. Furthermore, these patients had “no known damage to any part of the visual or association cortex of either hemisphere” (p. 1700). In other words, facial recognition-related deficits could not be explained by visual processing-related impairments and were, therefore, assumed to be associated with particular motor-related deficits that result in the characteristic “masked faces” (p. 1697) of Parkinson’s patients.

Similarly, in a large investigation that involved 108 patients with various focal brain lesions, Adolphs et al. (2000) discovered that damage to the somatosensory-

related cortex—in particular, “the right somatosensory-related cortices including S-I, S-II, insula, and supramarginal gyrus” (p. 2687)—correlated with patients’ impaired abilities to determine the emotional states of others on the basis of observed facial expressions. Furthermore, Adolphs et al. identified additional paired deficits in relation to these patients’ somatic sensation-related abilities (e.g., recognizing where on their faces they were being touched) and impairments in judging others’ emotions. The authors concluded:

“[O]stensibly visually-based performance [i.e., recognition of facial expressions and attributions of emotional states] can be severely impaired by dysfunction in right hemisphere regions that process *somatosensory* information, even in the absence of damage to visual cortices” (p. 2688; emphasis added).

In a subsequent investigation, which also focused on patients’ emotion-recognition abilities, Adolphs et al. (2002) demonstrated, once again—this time, in relation to “emotional prosody” or “the nonlexical component of speech” (p. 23)—that the task of *recognizing* particular emotions in others relies upon the same neuro-anatomical structures that are involved in *producing* such emotionally-valenced stimuli (i.e., facial expressions, vocal prosody) and *experiencing* their corresponding emotional states.

Additional dramatic evidence of underlying perception-action and perception-affect mechanisms in relation to specific emotional states—such as fear or disgust—can be gleaned from individual case studies involving brain-damaged patients. Adolphs et al. (1995), for example, described a 30-year-old male patient who, as a result of bilateral damage to his amygdala secondary to a metabolic syndrome, evidenced deficits in both his own *experience* of fear and the *recognition* of fear-related facial expressions in

others. Sprengelmeyer et al. (1999) described a similar patient, also suffering from bilateral amygdala damage, whose deficits in relation to fear-based stimuli extended to an inability to *recognize* fear-based bodily postures and vocalizations; this patient also reported reduced *experiences* of fear and anger. Working with a patient suffering from left insula and putamen damage, Calder et al. (2000) identified similar paired deficits in relation to both the firsthand *experiencing* and *expression* of disgust and the *recognition* of various social signals of disgust in others, including disgust-related facial expressions and emotional prosody.

Interestingly, the extent to which the neurocognitive task of perceiving the affective valence of particular facial expressions may also employ sub-cortical neural pathways (i.e., non-conscious, involuntary) has been suggested by yet another case study—this one, involving a “blindsight” patient with a long-standing right-sided hemianopia secondary to occipital lobe damage. In spite of this patient’s complete loss of vision in his right-visual field, differential amygdala responses were obtained when he was presented with fearful versus happy facial expressions, even when such expressions were presented to his “blind” field of vision (de Gelder et al., 1999; Morris et al., 2001). More recently, Harrison et al. (2006)—whose investigation involving the measurement of research subjects’ pupillary dilations in response to viewing photographs of sad facial expressions was mentioned earlier—documented this experimental task’s specific engagement of sub-cortical structures responsible for modulating autonomic arousal—including the Edinger-Westphal nucleus, a portion of the brainstem that is responsible for modulating pupillary dilation.

These particular findings may, in fact, be especially relevant to the current investigation in that they reinforce the idea that the *affective* components of empathic

functioning are likely to involve the same cortical and sub-cortical neural pathways that have been identified as relevant to first-person information-processing models associated with certain basic emotional stimuli (e.g., fear; see LeDoux, 2000). In other words, in the case of psychotherapy-related somatosensory transmissions, it would seem likely that therapists' typical stance of empathically processing patients' affective experiences could, under certain circumstances, also utilize such *sub-cortical* pathways to the relative *exclusion* of complementary cortical pathways (e.g., in response to either directly experiencing *or* observing or imagining one' patient experiencing especially-intense, fear-inducing stimuli consistent with trauma). They may also thereby become *dissociated* from therapists' otherwise-more-conscious awareness of their own or their patients' emotional experiences. This could help to explain how therapist's particular affective experiences—including certain types of somatic sensations in the case of somatosensory transmissions—might be perceived, at least initially, as idiosyncratic and relatively disconnected from other aspects of the treatment process.

### The Neuroscience of Perceiving Physical Pain in Others

I now turn to a closer examination of yet another specific category of firsthand experiences and empathic perceptions—those associated with physical pain—which has also been empirically demonstrated to be governed, at least in part, by underlying perception-action and perception-affect mechanisms. I am providing a more detailed review of this particular subset of the social neuroscience literature relevant to human empathic functioning (i.e., empathic pain perception) in order to emphasize what I believe is its particular relevance to evolving conceptualizations of somatosensory transmission phenomena. Once again, idiosyncratic *physical pain* symptoms were

among the most commonly cited manifestations of somatosensory transmission phenomena reported by clinician-theorists (Jacobs, 1973; Thomson, 1980; Wieland-Burston, 1987; Ragan & Siedes, 1990; Silverman, 1991; Sands, 1997a; Trautmann-Voigt, 2001; Pozzi, 2003; Orbach, 2004; 2006; Sonntag, 2006; Stone, 2006). Thus, a more thorough examination of the extent to which neurophysiologically-mediated perception-action and perception-affect mechanisms also apply, in particular, to perceived experiences of physical pain in others (i.e., via common neural activations in both the experiencer and the witness of physical pain) may assist in clarifying the underlying neurophysiological potentials—as well as limitations—which are likely to also define psychotherapy-related somatosensory transmissions.

Essentially, the overarching thesis of this chapter is that somatosensory transmission phenomena may be usefully conceptualized as a form of empathy—albeit, a relatively extreme variety of empathic response that is specific to the psychotherapy situation, involving not only *typical* emotional resonances, but also *atypical* physical sensations or physiological changes in the subjective bodily experience of therapists—and, as such, understanding of these phenomena may be informed by recent investigations into the *neurophysiological* bases of human empathy. Therefore, I have spent much of this chapter reviewing existing empirically-based conceptualizations of the proximate neurophysiological mechanisms involved in human empathic functioning (Preston & de Waal, 2002; Meltzoff & Decety, 2003; Decety & Jackson, 2004; 2006). In doing so, one of my intentions has been to highlight the extent to which normal-everyday manifestations of empathy—for example, psychotherapists' *emotional* resonances with their patients—may be increasingly understood in terms of underlying *physiological* processes and potentials.

In the final section of this chapter, however, I intend to review a narrower subset of contemporary neurophysiologically-based research that I view as especially pertinent to evolving conceptualizations of somatosensory transmission phenomena—particularly, insofar as this subset of the neuroscience-based research on empathy may be able to provide insights into the less commonly encountered *physical* counterparts or aspects of human empathic functioning that are the central focus of this dissertation.

In general, the focus of this section will be on recent empirical investigations that have addressed the following question: Beyond relatively *non-conscious*, common neural activations (or, “shared representations”; Decety & Jackson, 2004; 2006) that have been found to be associated with both the firsthand experiences and third-person observation (and, otherwise, non-visual perception) of a range of behavioral and basic affective expressions, is it ever possible—and, if so, under what circumstances—for an observer’s relatively *conscious, physical sensations* to result from these same perception-action and perception-affect mechanisms that social neuroscientists have recently linked to human empathic functioning?

To this end, I will closely review and evaluate recent neuroscience research that has examined the extent to which such *common-coding* rules also apply to the firsthand experience and empathic perception of physical pain-related phenomena. Furthermore, and with particular relevance to evolving conceptualizations of somatosensory transmissions—which are at least sometimes capable of being *consciously* perceived by therapists—this review will attempt to address whether those brain regions that have been found to be associated with processing relatively *conscious* and *sensory* experiences of localized physical pain phenomena—in particular, the anterior cingulate cortex, the insula, and the primary and secondary somatosensory cortices (Bushnell et

al., 1999; Coghill et al., 1999; Ploghaus et al., 1999; Treede et al., 1999; Davis, 2000; Peyron et al., 2000; Craig, 2003)—and which may be selectively activated under certain circumstances by simply observing (or, otherwise, perceiving) others in physical pain.

The following review—which I have conceptualized as an examination of the *physical boundaries* of empathy—draws heavily upon a series of recent social neuroscience publications that, taken together, provide a thorough accounting of the rapidly evolving state-of-the-art in neurophysiologically-based research literatures relevant to empathic pain perception (Decety & Jackson, 2004; 2006; Singer & Lamm, 2009; see also, Jackson et al., 2005; 2006; Lamm et al., 2011).

Indicative, I believe, of the special relevance of investigations of empathic pain perception to broader research objectives focused on elaborating the neural underpinnings of human empathy—Decety and Jackson (2006) wrote:

“The expression of pain provides a crucial signal that can motivate helping behaviors in others. Finding out how individuals perceive others in pain is...an interesting way to decipher the underlying neural mechanisms of empathy” (p. 55)

Similarly, Avenanti et al. (2006) characterized the particular importance of the study of empathic pain perception to understanding empathy:

“The presence of distinct sensory and affective components makes pain a particularly interesting model for testing simulative theories of empathy based on the notion of shared neural representations” (p. 243).

In an effort to formulate the specific neural structures and mechanisms involved in empathic pain perception, Decety and Jackson (2004; 2006) reviewed several empirical investigations—a single-neuron recording study (Hutchison et al., 1999) and

two functional MRI-based studies (Jackson et al., 2005; Singer et al., 2004)—each of which either suggested or demonstrated that, indeed, common neural activation patterns were associated with both the firsthand experience of physical pain and the observation or perception of physical pain sensations in others:

“These studies point out the similarities between self and other regarding neural-network activation during pain perception that are consistent with the shared-representations account of social interaction” (Decety & Jackson, 2006; p. 56).

However, Decety and Jackson (2004; 2006; see also, Jackson et al., 2005) also highlighted the fact that such common activation patterns—that is, common to both experienced *and* perceived pain conditions—appeared to be relatively narrowly confined to the anterior cingulate cortex (ACC) and anterior insula (AI) regions of participants’ brains across all of these studies. They noted in particular that subjects’ primary and secondary somatosensory cortices—although typically activated during *experienced* pain conditions—remained largely inactive during *perceived* or empathic pain conditions.

Furthermore, highlighting more general distinctions which had consistently been identified in earlier research between the affective and the sensory aspects of pain-related processing:

“A number of brain-imaging studies support the distinction often drawn in the pain literature between the sensory-discriminative aspect of pain processing and the affective one. For instance, the primary (SI) and secondary (SII) sensory cortices are mainly involved in the *sensory-discriminative* aspects of pain (Bushnell et al., 1999), while the anterior cingulate, and insula cortices subserve mainly the affective-motivational component (e.g., Rainville et al., 1997)” (Jackson et al., 2005; p. 772; emphasis added),

Decety and Jackson (2004; 2006) reasoned that, in fact, “only *part of* the network mediating pain experiences...is shared when empathizing or evaluating the pain in others” (2004; p. 93; emphasis added) and they deduced that it was “the affective and motivational aspects of one’s own pain” (2006; p. 55) that were shared during instances of empathic pain perception.

In other words, those brain regions associated with processing the firsthand *sensory* components of physical pain—namely, the primary and secondary somatosensory cortices (Bushnell et al., 1999; Ingvar, 1999; Peyron et al., 2000; Hofbauer et al., 2001)—were *not*, according to Decety and Jackson (2004; 2006), meaningfully involved in the empathic perception of others’ pain. In fact, these authors explicitly concluded: “One does *not* experience the *sensory* aspects of another’s pain, but one may understand her distress” (2004; p. 80; emphasis added). Furthermore, they made prominent reference to the complementary findings of Singer et al. (2004), whose influential article appeared in the journal *Science* (February, 2004) and was entitled: “Empathy for pain involves the affective but *not* sensory components of pain” (p. 1157; emphasis added).

Obviously, Decety and Jackson’s (2004; 2006; see also, Singer et al., 2004) particular conclusions on this matter have direct and considerably negative implications for this chapter’s central hypothesis—namely, that psychotherapy-related somatosensory transmission phenomena (at least sometimes involving the apparent transmission of consciously-perceived physical *sensations* between patients and therapists) may be usefully conceptualized as involving similar neurophysiological processes (i.e., perception-action and perception-affect mechanisms) to those that have

been linked to human empathic functioning. Therefore, I want to carefully examine and assess the body of research that Decety and Jackson relied upon to formulate their conclusions. In particular, I focus on a series of functional MRI-based investigations and their individual research designs in order to assess the potential relevance (or lack thereof) of these studies to what I see as the rather unique set of interpersonal circumstances that characterize the psychotherapy situation and, therefore, the potential of this research to inform conceptualizations of psychotherapy-related somatosensory transmissions.

Hutchison et al.'s (1999) single-neuron recording study involving a small sample of 11 adult psychiatric patients in the process of receiving “bilateral cingulotomies” (p. 403)—or, surgical resection of a portion of their cingulate cortex regions as indicated for severe treatment-resistant depression or obsessive-compulsive disorder—might appear to have little direct relevance to the type of interpersonal circumstances that characterize the typical psychotherapy interaction. Nevertheless, it seemed worth pointing out that this was, in fact, the only investigation that I was able to find which provided direct evidence of human “mirror neurons”—specialized cortical neurons similar to those identified earlier in the pre-motor cortices of rhesus macaques (Rizzolatti et al., 1995)—which, in this particular study, were discovered in the human anterior cingulate cortex (ACC) and were found to exhibit pain-specific activation patterns in response to both the *firsthand experience* and *empathic perception* of physical pain (i.e., “pin pricks” applied to either the subject’s own or the experimenter’s fingers; p. 404). Interestingly, Hutchison et al. also reported that these same neurons, which were found to exhibit “mirroring” functionality, displayed as well another unique characteristic: subsequent to the initial administration of pain (i.e., “pin pricks”), these

neurons became selectively activated in response to *anticipated* pain phenomena (i.e., firing *prior to* the administration or observation of the actual pain-eliciting stimulus)<sup>22</sup>.

Finally, Hutchison et al. (1999) reported that during another experimental condition involving the same group of subjects—this time, applying direct electrical stimulation to those neurons located in the ACC that had been identified as selectively sensitive to nociceptive stimulation—that *none* of their subjects, in fact, reported or demonstrated that they had experienced any painful sensations:

“Surprisingly, electrical stimulation even with high currents failed to elicit painful or unpleasant sensations at sites in the ACC where we recorded pain-sensitive neurons. One possible explanation may be that pain is perceived only with simultaneous activation of other cortical regions (for example, SI, insula) and/or that it requires bilateral activation of the ACC” (p. 404).

In other words, Hutchison et al. largely concluded that the ACC was unlikely—at least, on its own—to be involved in processing the *sensory* components of pain phenomena. These findings eventually informed Decety and Jackson’s (2004; 2006) arguments as to the lack of shared “sensory” components of pain processing in observers engaged in empathic pain perception.

In addition to the work described by Hutchison et al. (1999), Decety and Jackson (2004; 2006) also cited two functional MRI-based investigations of empathic pain

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<sup>22</sup> Although somewhat beyond the scope of this project, it is worth noting that these are, in fact, the same complementary functions (i.e., “mirroring” and “anticipatory” activation) that were detected by the group of researchers that discovered “mirror neurons” in rhesus macaques (Rizzolatti et al., 1995). These discoveries, in particular, the complementary functions of these mirror neurons has led to considerable speculation with regard to the potential underlying role(s) of these specialized brain cells in promoting human *intersubjectivity*—from the relatively automatic attributions of intentionality we make to each others’ actions and expressions (Gallese, 2001; 2003) to the evolution of human languages believed to be built upon such underlying abilities for common understandings (Gallese & Lakoff, 2005).

perception (Jackson et al., 2005; Singer et al., 2004), which further informed their conclusions—in particular, that the *sensory* aspects of pain phenomena, as distinct from the emotional and motivational components of pain, were *not* shared when witnessing or perceiving others in pain.

Jackson et al. (2005) measured participants' responses to still-photographs depicting hands or feet in either “neutral” or “painful” situations—for example, a right-side foot on the ground near an open car door (i.e., “neutral”) or a right-side foot in the process of becoming pinned in a closing car door (i.e., “painful”). In contrast to one of their original hypotheses—namely, that “perception of hands and feet in painful situations would be associated with specific [hemodynamic] changes in the somatosensory cortices (SI-SII)” (p. 776)—Jackson et al., found that significant hemodynamic activations occurred in *only* those brain regions (i.e., the ACC and the AI) that had previously been associated with “the affective aspect of pain processing” (p. 776). In other words, brain regions believed to be associated with “the sensory-discriminative aspect of pain processing” (p. 772)—namely, the primary and secondary somatosensory cortices—were not enlisted for this particular experimental task intended to simulate empathic pain perception.

Jackson et al. (2005) did allude to some potential limitations of their research, which I believe may have particular relevance to this project's focus on psychotherapy-related somatosensory transmissions. First of all, they suggested that:

“[O]ne possible explanation for the lack of involvement of SI and SII [the primary and secondary somatosensory cortices] could be that the *intensity* or *depth* of the induced process was not sufficient to prime the whole sensory-affective pain continuum...Thus, it is possible that an experiment that uses *more shocking* or *more intense* stimuli would lead to SI and/or SII activation during

observation of pain in others, but such a design would also tap into other related processes such as discomfort and personal distress” (p. 776; emphasis added).

Furthermore, the authors speculated that the lack of anticipated neural activity in participants’ somatosensory and pre-motor cortices might have also had to do with the specific circumstances under which “neurons exhibiting mirror properties” (Jackson et al, 2005; p. 777) tend to become activated. They noted, in particular, that this type of specialized neuron has:

“mainly been discovered in monkey and humans during observations of goal-directed actions, and not during non-directed actions, when watching *static pictures* (Rizzolatti et al., 2001), as were used in this current study. In addition, our stimuli depicted actions for which the subjects were acted upon, not acting. This may represent an important functional difference in the way mirror neurons are triggered, and, if so, it constrains their involvement in many everyday empathic situations” (p. 777; emphasis added).

In other words, Jackson et al. (2005) raised, however briefly, several concerns regarding the generalizability of their findings to the broader category of experiences that involve empathizing with the physical pain of another individual—especially, in terms of the relative *lack of intensity*, *lack of agency*, or general *passivity* that characterized their experimental conditions.

Insofar as I am attempting to extrapolate these results to the unique set of circumstances that characterize the psychotherapy situation, I would add the following additional caveat—this experiment’s “static pictures” (p. 777) depicted *only* the isolated limbs of *unknown* others. Of course, Jackson et al. (2005) were attempting to carefully control and, in some cases, exclude myriad potentially complicating or contaminating

variables—for example, subjects’ individualized and difficult-to-measure responses to the relative nuances of particular facial expressions, had these been depicted in the photographs. However, given the rather significant limitations of having subjects view still-photography depicting relatively isolated hands and feet belonging to unknown others in pain-inducing situations, one cannot help but wonder—as these researchers, to their credit, did—how subjects might have responded to “more intense stimuli” (p. 776), such as *real-life* circumstances that call for empathic pain perception. Given the primary focus of this investigation, I cannot help but consider a psychotherapist presented with the relatively common task of empathizing with her patient who is in physical (or, intense emotional) pain—a patient who may be known quite *intimately* to this therapist, a patient who brings his *whole body* along with its facial expressions and accompanying verbal and non-verbal descriptors of pain, a patient who is essentially asking for, in therapeutic need of, and, in fact, may have come to rely upon his therapist’s ability to deeply empathize with his pain. I return, in the following chapter, to more specific speculation as to the particularly *intense* clinical circumstances that, I believe, may facilitate instances of *sensory empathy* in the form of psychotherapy-related somatosensory transmission phenomena.

In the other functional MRI-based investigation cited by Decety and Jackson (2004; 2006), whose design may be seen as somewhat more amenable to extrapolation to *real-life* instances of empathic pain perception, including the psychotherapy encounter, Singer et al. (2004) enlisted romantic partners to serve as research participants “under an assumption that couples are likely to feel empathy for each other” (p. 1158). In other words, rather than simply presenting subjects with a relatively unknown model who would receive a painful stimulus (Hutchison et al.,

1999) or exposing subjects to still photographs of isolated human body parts in painful situations (Jackson et al., 2005), Singer et al. (2004) enlisted female participants and their “loved one[s]” (p. 1160) in order to compare “in vivo” (p. 1158) the hemodynamic activations of particular brain regions associated with experiences of both firsthand pain and empathic pain perception. Once again, however, in order to control for potentially complicating variables, Singer et al. (2004) devised an experimental mechanism whereby participants were only able to see their partner’s right hand—that is, the site at which the painful electrical stimulus was administered. As such, participants were alerted as to whether they or their partners would be receiving either a painful or non-painful stimulus via “an arbitrary [visual] cue” (p. 1158) that appeared on a computer monitor.

Consistent with the findings of Jackson et al. (2005), Singer et al. (2004) found that participants’ perception of pain in a “loved one” (p. 1160) was mediated by *only* those brain regions—namely, “left and right AI, ACC, lateral cerebellum, and brainstem” (p. 1160)—which the authors described as being involved in processing “the subjective affective dimension” (p. 1161) of one’s own firsthand experiences of pain. Once again, Singer et al. (2004) highlighted the apparent lack of hemodynamic activation in brain regions associated with sensory-discriminative aspects of pain for the empathic pain conditions:

“[O]ur analysis demonstrates that pain-related activation in contralateral SI, SII/posterior insula, and caudal ACC are specific to self-experienced pain, as opposed to perceived pain in others” (p. 1160).

On this basis, the authors concluded that:

“[E]mpathizing with the pain of others does *not* involve the activation of the whole pain matrix, but is based on activation of those second-order re-representations containing the subjective affective dimensions of pain” (p. 1161; emphasis added).

Although not explicitly mentioned by Singer et al. (2004), many of the same potential limitations mentioned in relation to Jackson et al.’s (2005) findings apply to this research as well—most notably, the artificial restrictions placed on participants’ abilities to observe more direct cues of their partner’s experience of physical pain such as facial expressions, body language, tone of voice and vocal rhythms. Interestingly, Singer et al. (2004) have more recently been criticized (see Avenanti et al., 2006) for inadvertently overemphasizing “second-order re-representational” (p. 1161) aspects of pain-related processing, at the expense of what might be considered ‘first-order’ sensory-discriminative dimensions of empathic pain perception—by virtue of their having devised an experimental mechanism that utilized arbitrary visual cues, or *symbols*, to signal the administration of painful stimuli—in effect, priming cortical pathways responsible for “second-order re-representations” (p. 1161) through their experimental design’s reliance upon *symbols* rather than more direct percepts associated with experiences and expressions of physical pain.

In spite of these caveats—which I am, of course, highlighting and emphasizing in order to challenge these researchers’ conclusions vis-à-vis my own efforts to formulate a neurophysiologically-based conceptualization of somatosensory transmissions—the prevailing viewpoint among social neuroscientists, as recently as only a few years ago, was that empathic pain perception selectively involved *only* those brain regions that were also involved in processing the *emotional* and *motivational* aspects of firsthand experiences of physical pain—and, specifically, did *not* appear to engage those brain

regions involved in processing the *sensory* components of physical pain (Decety & Jackson, 2004; 2006; Singer et al., 2004; see also, Jackson et al., 2005). In other words, Preston and de Waal's (2002) perception-action model of human empathic functioning did not, according to influential social neuroscientists, extend to the *sensory* components of physical pain-related phenomena—a conclusion that appeared to dramatically undermine my efforts to conceptualize psychotherapy-related somatosensory transmission phenomena from the perspective of existing neurophysiologically-based models of empathy.

Therefore, when I began work on this dissertation project several years ago, I largely anticipated having to rely upon more speculative arguments in constructing a neurophysiologically-informed conceptual basis for psychotherapy-related somatosensory transmission phenomena—which I imagined would involve, as the past few pages can attest, exposing and emphasizing some of the limitations of existing experimental designs. However, in only the relatively brief period of time that I have been engaged in working on this project, much has indeed changed within social neuroscience with regard to understanding the neural architecture underpinning empathic pain perception. For example, more recent, especially non-fMRI-based, investigations of empathic pain perception have increasingly drawn into question earlier conclusions as to the lack of involvement of sensory-discriminative components of pain-related processing. In fact, in a rather significant reversal of their earlier article in *Science* (February, 2004), Singer and Lamm (2009) stated more recently:

“While initially evidence was restricted to the affective component of pain—as indicated by activation restricted to areas involved in coding the affective–motivational aspects of the feeling of pain—there is now evidence that *areas associated with somatosensory processing can also be activated when we*

*witness another person's pain*, in particular, when our attention is directed to the somatosensory aspects of the pain experience" (p. 85; emphasis added).

What has been particularly enlightening in reviewing the evidence upon which Singer and Lamm (2009) based their revised conclusions has been carefully noting how, in many cases, relatively fine-tuned adjustments of earlier research designs have resulted in significant evidence of signal activations in brain regions associated with processing the *sensory-discriminative* aspects of firsthand pain. I would argue that closely examining these details—that is, fine-tuned adjustments to earlier research designs and the contextual variables for empathic pain scenarios that these adjustments are intended to represent—may offer important clues as to the particular circumstances under which psychotherapy-related somatosensory transmissions may also become more relevant, or a more-likely-to-be-encountered clinical phenomenon. Therefore, I will provide a review of this more recent body of social neuroscience research on the neural underpinnings of empathic pain perception with particular attention to contextual variables that have been associated with significant activations of brain regions, such as the primary somatosensory cortex (S-I), known to be involved in processing the *sensory* components of firsthand experiences of physical pain.

A series of recent investigations by a group of Italian researchers (Avenanti et al., 2005; 2006; Minio-Paluello et al., 2006; Bufalari et al., 2007) was inspired by speculation as to why earlier functional MRI-based studies of empathic pain perception (e.g., Singer et al., 2004; Jackson et al., 2005) had *not* found evidence of neural activation in brain regions associated with sensory-discriminative aspects of pain processing. At the outset of these investigators' initial publication in this area, in fact, they asked: "[w]hy has previous fMRI on empathy for pain failed to find specific somatic

activations?” (Avenanti et al., 2005; p. 246; emphasis added)—to which, they eventually surmised:

“[t]he simplest explanation is that previous studies may have adopted nonbiological (sic) relevant visual stimuli for evoking pain body-mapping, such as *static* pictures of potentially painful situations, very *superficial* injections in the hands, or stimuli in which the body was not *directly shown*” (p. 246; emphasis added).

Therefore, Avenanti et al. (2005; see also, Avenanti et al., 2006) designed several experiments meant to specifically test some of the potential limitations of earlier research by, first-and-foremost, having study participants observe relatively more *intense* “‘flesh and bone’ painful stimuli” (p. 957). Unlike earlier studies, participants viewed video footage that depicted needles “deeply penetrating” (Avenanti & Aglioti, 2006; p. 247) muscle tissue in the hand of a human model. Also in contrast to earlier research, Avenanti et al. (2005) employed single-pulse transcranial magnetic stimulation (TMS) as a means of measuring relatively more subtle “somatic activations” in the form of cortically-initiated corticospinal inhibitions associated with particular hand muscles in their study participants—corresponding to the same hand muscles that were observed being “deeply penetrated” by a needle in the model. By monitoring and controlling for changes in excitability at the muscle or peripheral nerve levels and spinal cord segments controlling the specific hand muscle, Avenanti et al. reasoned that any evidence of modulation of corticospinal activation levels in their study participants would suggest that brain regions associated with processing *sensory-discriminative*, as opposed to simply the emotional and motivational, components of physical pain were indeed being enlisted by these particular empathic pain-related scenarios.

Compared with control conditions that included having participants watch video footage of either static hands (Avenanti et al., 2005) or hands being touched by Q-tips (Avenanti et al., 2006), these investigators were able to distinguish significantly increased somatic activations (i.e., cortically-initiated corticospinal inhibitions) when study participants observed needles “deeply penetrating” the hand of a model (Avenanti et al., 2005; 2006). Particularly impressive were Avenanti et al.’s (2005; 2006) findings that these selective corticospinal inhibitions, recorded in the observers of painful stimuli, corresponded precisely with the specific hand muscles that these participants had observed being penetrated in the model. Furthermore, Avenanti et al. found *no such evidence of corticospinal inhibitions during less intense control conditions*. This and subsequent investigations by this same group of researchers (Minio-Paluello et al., 2006; Bufalari et al., 2007) has also found that these increases in cortically-initiated somatosensory activations are, in fact, correlated with the *intensity* (i.e., sensory-discriminative aspect of pain processing), but *not* the *unpleasantness* (i.e., affective-motivational aspect of pain processing), of the pain that was ascribed to the model in participants’ subjective ratings of the pain phenomena they had observed. Thus, these findings provide further evidence that the corticospinal activations measured by these researchers, in fact, reflected *sensory-level* processing, as opposed to emotional or motivational components, of the *perceived* painful experiences.

Avenanti et al.’s (2005) results suggested for the first time that cortical areas of the brain responsible for processing the *sensory-discriminative* aspects of pain were also activated during empathic pain perception. Furthermore, these results suggested that the relative *intensity* of the painful experience that one observes may be a particularly important variable in determining whether these sensory-discriminative processing

components of the observer's neurophysiological pain matrix are likely to be activated.

Especially relevant to my interest in extrapolating these neuroscience-based findings to the particular clinical circumstances that might also facilitate instances of somatosensory transmission in psychotherapy is the underlying conceptual framework referenced by Avenanti et al. (2005). Once again, these researchers speculated that the most likely reasons earlier researchers had *not* found evidence of somatosensory-specific neural activations in empathic pain scenarios was that "painful" experimental stimuli observed in earlier studies had not been of sufficient "biological relevance" (p. 246) to study participants. In further clarifying their thinking on this concept of biological relevance, Avenanti et al. wrote:

"[o]ne may speculate that body mapping of others' pain may occur especially when the visual scene is of *functional relevance* for the individual (e.g., when the stimuli are *shocking* or very *intense*)" (p. 246; emphasis added).

Implicit here is the fact that Avenanti et al. (2005) were essentially anchoring their research within an evolutionary biological perspective that would only be likely to privilege such 'hard-wired' instances of social-learning—in this case, relatively spontaneous "body mapping of others' pain" (p. 246)—under relatively narrow circumstances, such as those in which an organism's survival might be perceived as in danger (e.g., witnessing another person's relatively *intense* experience of pain). From this perspective, Avenanti et al. (2005) speculated that evidence they had found of cortically-initiated corticospinal activations reflected relatively automatic, protective somatosensory and somatomotor-based responses to potentially life-threatening

circumstances, comparable to “freezing or escape reactions” (p. 955). Along these same lines, Avenanti and Aglioti (2006) argued that:

“The selective embodiment of others’ pain in the observer’s corticospinal system, *sensitively more than emotionally denoted*, may thus be crucial for the social learning of reactions to painful stimuli in that it may help the observer’s corticospinal system to implement specific escape or freezing reactions before painful stimuli are actually experienced” (p. 248; emphasis added).

Utilizing a distinct neuroimaging modality—this time, EEG-based measurements of somatosensory-evoked potentials—a follow-up investigation by the same group of researchers (Bufalari et al., 2007) was able to even more specifically identify the regions of the parietal somatosensory cortex that were being activated during empathic pain perception of relatively *intense* painful stimuli (i.e., observing a needle “deeply penetrating” a model’s hand). Bufalari et al. (2007) discovered that:

“viewing ‘flesh and bone’ painful stimuli delivered to the hand of a human model unknown to the observer causes an increase in the amplitude of the p45 component of the [somatosensory-evoked potentials] induced by median nerve stimulation” (p. 2557).

Once again, these particular neural activations, which were found to be initiated in the p45 region of the parietal somatosensory cortex—also known as the primary somatosensory cortex (S-I)—positively correlated with participants’ subjective evaluations of the *intensity*, but *not* the *unpleasantness*, of the painful stimuli they had observed.

Interestingly, these investigators also found evidence of p45 activation when study participants observed a model’s hand simply being touched with a Q-tip.

However, in this case, they observed a *reduction* in the amplitude of the p45 component of the somatosensory-evoked potentials. Overall, these findings suggested that specific modulation of neural activity in the primary somatosensory cortex (S-I) indeed took place during the empathic perception of pain, or even touch, in others. Bufalari et al. (2007) concluded that:

“the modulation of neural activity in S-I [the primary somatosensory cortex] during the mere viewing of pain and touch stimuli delivered to others indicates that [S-I] is involved not only in the personal experience of pain and touch but also in resonant mapping of others’ pain and touch...The increase of p45 amplitude during the observation of others’ pain found in the present study hints, for the first time, at a role in [S-I] in processing others’ pain” (p. 2559).

Given that the primary somatosensory cortex (S-I) has been linked to encoding, in particular, the firsthand *sensory-discriminative* aspects of physical pain and touch—for example, its localization and intensity (Porro et al., 1998; Ploner et al., 2000; Timmermann et al., 2001)—Bufalari et al.’s (2007) results provided the most direct evidence yet that simply bearing witness to others’ physical sensations can, under certain circumstances (e.g., observing relatively *intense* painful experiences), activate one’s own neural mechanisms associated with specific firsthand experiences of physical sensation.

Cheng et al. (2008) employed yet another neuroimaging technique—magnetoencephalography (MEG)—in order to further “provide a more direct mapping of primary somatosensory involvement” (p. 1838) in empathic pain scenarios. Importantly, and in contrast to Avenanti et al. (2005) and Bufalari et al. (2007), who had specifically employed relatively *intense* painful stimuli (i.e., a “deeply penetrating”

needle), Cheng et al. (2008) utilized the same set of still photographs (i.e., depicting human limbs in painful and non-painful situations) as several earlier functional MRI-based investigations (see Jackson et al., 2005; 2006)—which, notably, had *not* found evidence of significant activation in the primary somatosensory cortex during empathic pain perception. However, using MEG-based recordings, Cheng et al. did find evidence of significant levels of activation in the primary somatosensory cortex (S-I) during *both* of their experimental conditions—that is, when participants viewed photographs depicting human limbs in *either* painful *or* non-painful situations. The researchers noted, however, that: “watching painful compared to non-painful situations suppressed somatosensory oscillations to a significant (sic) stronger degree” (p. 1833)—thus, indicating that the primary somatosensory cortex was, in fact, *more* activated during empathic scenarios that involved painful versus non-painful stimuli.

In other words, Cheng et al.’s (2008) results were largely consistent with those of Bufalari et al. (2007). However, because Cheng et al. utilized identical experimental stimuli to earlier functional MRI-based investigations (Jackson et al., 2005; 2006), these investigators were able to conclude that earlier discrepancies with regard to the role of the primary somatosensory cortex in empathic pain perception were, at least in part, a function of the relative limitations of fMRI-based measurements:

“These results, consistent with the mirror-neuron system, demonstrate that the perception of pain in others modulates neural activity in primary somatosensory cortex and supports the idea that the perception of pain in others elicits *subtle somatosensory activity that may be difficult to detect by fMRI techniques*” (p. 1833; emphasis added).

More recently still, a series of investigations utilizing functional MRI-based recordings (Lamm et al., 2007; 2009) has even more definitively established a role for the primary somatosensory cortex in empathic pain perception. Similar to the approach of Avenanti et al. (2005) and colleagues, Lamm et al. (2007; 2009) had their study participants observe relatively *intense* pain-evoking scenarios (i.e., still photographs of human hands or arms being penetrated by a hypodermic needle) while measuring, in particular, activation levels within the somatosensory cortices. However, in addition to this empathic pain condition, Lamm et al. (2009) independently ‘mapped’ their participants’ primary somatosensory cortex-level responses—also, using fMRI—to *firsthand* experiences of simply being touched (i.e., touched with a Q-tip). As a result, Lamm et al. (2009) found that fMRI-based activation patterns corresponding to these two experimental conditions overlapped significantly, which suggested for the first time that observing another person’s relatively intense experience of physical pain could activate *somatotopically-specific* areas of the observer’s primary somatosensory cortex—namely, the area of the observer’s contralateral primary somatosensory cortex that corresponded specifically to the observed model’s affected body part.

Taken together, what all of these investigations (i.e., Avenanti et al., 2005; 2006; Bufalari et al., 2007; Cheng et al., 2008; Lamm et al., 2008) have demonstrated is that the primary somatosensory cortex can indeed be activated by the empathic perception of others’ physical sensations—however, typically to an incrementally *lesser* extent than in firsthand sensory experiences. Adding further support to recently revised conclusions with regard to the primary somatosensory cortex’s involvement in empathic pain processing, several of these recent investigations also recorded significant, albeit reduced, activation levels within the primary somatosensory cortex

for even relatively “less intense” experimental conditions—“touch” as opposed to “deep penetration” (Bufalari et al., 2007), or still photographs as opposed to video footage (Cheng et al., 2008)—conditions, which had previously been seen as selectively activating *only* the affective and motivational components of observers’ pain matrix (Decety & Jackson, 2004; 2006; Singer et al., 2004; see also, Jackson et al., 2005). As a function of this body of research suggesting *incremental* involvement of the primary somatosensory cortex across a range of experimental scenarios involving the perception of another person’s physical sensations, subsequent investigations (as well as reinterpretation of earlier findings) have increasingly focused on elaborating the particular contextual variables that can impact—either positively or negatively—neural activity in brain regions associated with processing the *sensory-discriminative* components of observed (or, otherwise, perceived) physical pain scenarios.

In line with the work of Avenanti et al. (2005) and their colleagues (e.g., Avenanti et al., 2006; Minio-Paluello et al., 2006; Bufalari et al., 2007)—who identified “biologically relevant” pain *intensity* as an important dependent variable in determining the extent to which instances of empathizing with another’s pain tends to elicit neural manifestations of one’s own firsthand sensory-level processing of perceived pain experiences—I will now review several investigations that have begun to identify additional contextual variables, which also appear to facilitate shared neural representations (i.e., in *both* the person experiencing the physical sensations and a third-person observer) associated with processing firsthand sensory-discriminatory components of physical sensations. I would suggest that, in particular, the recent findings of this more narrow body of neuroscience-based research might be of special

relevance to determining specific clinical circumstances that may be most likely to facilitate somatosensory transmissions within psychotherapy dyads.

In a follow-up study to one of the original functional MRI-based investigations of empathic pain processing (Jackson et al., 2005), Jackson et al. (2006) found that when participants were explicitly instructed to imagine *themselves* experiencing the painful stimuli depicted in various still photographs (i.e., the same series of still images utilized by Jackson et al., 2005), as opposed to imagining the experience of *another individual* such as the person depicted in the photograph, participants' fMRI recordings displayed "more extensive" (p. 752) activation of brain regions associated with first-person pain processing—including, what was at the time a first, fMRI-based evidence of empathic pain-related activation of the *secondary somatosensory cortex*:

"Both the Self's and the Other's perspectives were associated with activation in the neural network involved in pain processing, including the parietal operculum, anterior cingulate cortex (ACC; BA32) and anterior insula. However, the *Self*-perspective yielded *higher* pain ratings and involved the pain matrix *more extensively* in the *secondary somatosensory cortex*, the ACC (BA 24a"/24b"), and the insula proper" (p. 752; emphasis added).

Additionally, Jackson et al. (2006) found that taking *another person's* perspective in these empathic pain scenarios was also associated with increased activation of brain regions not typically associated with the pain matrix—the posterior cingulate/precuneus and the right temporo-parietal junction. They concluded that significant levels of activity in these additional brain areas constituted evidence of top-down processing mechanisms, which were deemed by investigators to be critical to mature empathic functioning—whereby, *top-down* cognitive mechanisms associated

with empathy were seen as effectively modulating the impact of related *bottom-up* processes, such as perception-action and perception-affect couplings, by, for example, facilitating *differentiation* of one's own from others' affective and sensory experiences.

Although never fully elaborated by this group of investigators, the suggestion here is that *top-down* mechanisms, such as those that would ordinarily facilitate self-other differentiation during empathic functioning, may be relatively susceptible to being overwhelmed by *bottom-up* processes associated with empathic functioning (i.e., neurophysiological mechanisms that promote shared neural activations corresponding to firsthand motor, affective, and sensory-level experiences) under the specific circumstances of perceiving another person's relatively intense physical sensations *and* being in a particular type of interpersonal position vis-à-vis the observed individual that demands conscious reflection upon the observed individual's experience. This finding would seem to have direct relevance to the psychotherapy situation.

Obviously, being able to consciously imagine oneself in the emotional and, sometimes, physical circumstances of another person (i.e., one's patient) is a regular and necessary aspect of nearly all psychotherapists' work. From the perspective of Jackson et al.'s (2006) findings, however, this particular component of psychotherapy practice may leave psychotherapists relatively more susceptible to experiencing the neurophysiological correlates of *their patients'* physical sensations and experiences—such as might occur, for example, when attempting to consciously empathize with a particular patient's intense physical pain.

In other words, I am arguing that, in general, the psychotherapy situation itself represents a unique set of real-life circumstances in which the relative impacts of top-down processing mechanisms associated with normal empathic functioning (e.g., a

therapist's ability to sufficiently differentiate his or her own experiences from patients') may be diminished, or become *disregulated*, in relation to more automatic bottom-up processes associated with empathy (i.e., neurophysiological mechanisms that promote relatively undifferentiated, shared neural activations corresponding to patients' and therapists' behavioral, affective, and sensory-level experiences). This may be especially likely under certain *extreme* clinical circumstances that will be further elaborated below and in subsequent chapters.

In yet another functional MRI-based investigation of empathic pain processes and potentials, Saarela et al. (2007) were also able to demonstrate significantly increased neural activity in participants' brain regions corresponding to the firsthand experience of physical pain—including sensory-discriminative components such as pain intensity—by modifying another important contextual variable. In contrast to Jackson et al. (2006), who manipulated participants' *perspective* when assessing pain-related stimuli, Saarela et al. (2007) altered earlier research designs by presenting study participants with *facial expressions* (i.e., still photographs depicting the faces of chronic pain patients as these individuals experienced a range of pain-intensities). They found that independent ratings of the pain-intensities assigned to their photographs correlated significantly with increased neural activity in participants' brain regions associated with processing sensory-discriminative aspects of firsthand experiences of physical pain (i.e., pain-intensity).

Importantly, Saarela et al. (2007) also found that one specific brain region—the insula—displayed activation patterns in their study involving facial expressions that were consistent with only one of the conditions of an earlier investigation (Jackson et al., 2006), which had *not* presented participants with facial expression-related

information but had explicitly asked participants to imagine *themselves* or *another person* experiencing the depicted stimulus:

“[T]he suggested hemispheric difference in the insular function (Jackson et al., 2006) brings an interesting addition to these results. If the self-perspective engages the insula bilaterally and other-perspective activates only the right insular area as suggested by Jackson, Meltzoff, and Decety (2005), our results on bilateral insular response in both provoked–chronic pain contrast and the pain intensity–covariant model point to *a lesser self/other boundary when viewing the faces of others than when mentalizing the perspective of another*” (p. 236; emphasis added).

Saarela et al.’s findings suggested that the mere presentation of facial expressions associated with another person’s experience of physical pain—in contrast to presenting isolated limbs of human models in painful situations—was capable of producing neural activation patterns similar to having subjects *consciously* project *themselves* into depicted painful scenarios (Jackson et al, 2006). In other words, these results demonstrated for the first time the significant potential for particular categories of facial expressions (i.e., pain-expressive) to diminish the role of certain top-down cognitive mechanisms associated with normal empathic functioning (e.g., self-other differentiation) and, thereby, accentuate the role of *bottom-up* empathic mechanisms promoting shared neural representations of affective and, even, *sensory*-level experiences between individuals experiencing physical pain and witnesses of these individuals’ pained facial expressions.

Obviously, heightened attention to facial expressions constitutes an enormously important aspect of contemporary psychotherapy practice, in particular, for its potential to serve as a valuable source of non-verbal information regarding patients’ (and therapists’) emotional *and* physical experiences. However, an additional

implication of Saarela et al.'s (2007) findings—in particular, for better formulating the particular aspects of the psychotherapy situation that may facilitate somatosensory transmissions—has to do with the conceptual framework informing this investigation and, in particular, analysis of its findings.

Like Avenanti et al. (2005), Saarela et al. conceived of their work on empathic pain through the lens of evolutionary biology:

“The more widespread neural correlates of estimated pain intensity in our study than when subjects viewed pictures of human limbs in painful situations (Jackson et al., 2005) could reflect the importance and *survival value* of detecting pain directly from the face of another person” (p. 235; emphasis added).

In contrast, however, to Avenanti et al.—who tended to focus more in their analysis upon the neural correlates of cortically-initiated *inhibition* of motor-evoked potentials, or what can be construed as “freezing” responses—Saarela et al. focused upon their own evidence of increased neural activity, in particular, in regions of the brain associated with pre-motor planning such as the bilateral secondary motor area (SMA) and the inferior parietal lobule (IPL). They stated that:

“In the provoked–chronic pain contrast of our study, the SMA was activated bilaterally. In fact, the experience of pain has many connections with motor function; for example, experimental noxious stimuli activate the primary motor cortex (Raij et al., 2004) as well as the midcingulate skeletomotor area (Hutchison et al., 1999; Derbyshire 2000; Peyron et al., 2000). *Viewing faces expressing pain might thus trigger motor plans that facilitate escape or helping behavior*, corresponding to the observed SMA activation in our study” (p. 236; emphasis added),

and, similarly:

“During mental simulation of motor actions, the IPL is activated with left-hemisphere dominance for first-person perspective, and with right-hemisphere dominance for third-person perspective (Ruby and Decety 2003). In this sense, the left-hemisphere IPL correlation with pain intensity estimates in our study points toward the first-person perspective of pain and the related *preparation for escaping or helping action*” (p. 236; emphasis added).

Although never fully elaborated by Saarela et al. (2007), or by other investigators for that matter, it would seem that one potentially useful way of parsing the existing social neuroscience-based evidence—that is, of specific *somatosensory* and *somatomotor* neural activations related to the perception of others’ physical pain—would be in terms of the range of subcortically-initiated behavioral tendencies in response to biologically-relevant danger:

“[P]ain has an evolutionary importance in signaling a potential threat, which requires the nervous system to swiftly evaluate risk in the environment...once the risk is assessed it is then necessary to initiate appropriate behaviors to the potentially dangerous environment, such as fighting, fleeing, or freezing” (Akitsuki & Decety, 2009; p. 723; see also, LeDoux, 2000; Porges, 2003).

From this perspective one could, therefore, imagine that distinct experimental conditions that simulate the perception of physical pain in others, such as witnessing a “deeply penetrating” needle (Avenanti et al., 2005; 2006), may be more likely to trigger an automatic ‘freeze’ response—thereby initiating increased anticipatory *somatosensory* processing within the primary somatosensory cortex of observers (Bufalari et al., 2007). Whereas, other types of empathic pain-related experimental stimuli—for example, viewing the facial expressions of chronic pain patients—might be more likely to evoke *somatomotor*-intensive ‘fight or flight’ responses in participants,

corresponding to increased activation in pre-motor planning areas (i.e., SMA and IPL; see Saarela et al., 2007).

While somewhat speculative, I would argue that these suggestions do bear some resemblance to real-life tendencies to ‘grin and bear’ certain types of physically painful experiences—such as, for example, one’s relatively passive acceptance (i.e., ‘freezing’) of painful injections at the doctor’s office—while, on the other hand, not-so-passively responding to other categories of pain-evocative stimuli—such as when one moves rather immediately to avoid (i.e., ‘flight’) or protect (i.e., ‘fight’) someone whose facial expressions reflect severe physical pain.

I raise this point in order to highlight, once again, the relatively unique position of the psychotherapist vis-à-vis his or her patients, which I would argue does not often permit these same ‘degrees of freedom’ in response to real-life interpersonal encounters with others’ physical pain. In other words, because actively empathizing with patients’ immediate emotional and, sometimes, physical experiences is such an essential and pervasive aspect of nearly every psychotherapy encounter, I am suggesting that psychotherapists may, therefore, be somewhat more likely (certainly, more so than Saarela et al.’s (2007) study participants) to manifest the *somatosensory*-intensive neural correlates of ‘freezing’ responses—as opposed to the more *somatomotor*-intensive neural correlates of ‘fight or flight’—even when empathizing with their patients’ relatively direct expressions of intense physical pain.

However, either scenario—that is, spontaneous somatosensory-specific *or* somatomotor-specific activations which tend to neurophysiologically simulate the observed or perceived physical sensations of one’s patients—are, of course, entirely possible under the right set of clinical circumstances. After all, consider Jacobs’ (1973)

idiosyncratic *motor* responses—spontaneously reaching for his belt loops—as his patient described with disturbed and, in particular, *pained* expressions his experience of witnessing a friend diapering her infant son.

Once again, my overarching point here is that psychotherapists—as *active empathizers* with their patients’ emotional and physical experiences (Jackson et al., 2006) and *active decoders* of their patients’ non-verbal facial expressions (Saarela et al., 2007)—would seem to be relatively predisposed by these roles to increased manifestations of what I would call “somatosensory contagion” (see Hatfield et al., 1994; 2011 re: “emotional contagion” as relatively automatic, neurophysiologically-mediated *motor*- and *affective*-related mimicry processes underlying empathy) in the face of patients’ intense physical pain symptoms. I define somatosensory contagion as *somatosensory-specific* neurophysiological activity, whether primarily somatosensory or somatomotor, associated with *firsthand* experiences of certain types of relatively intense physical sensations that are observed or perceived *in others*.

Evidence that yet another specific interpersonal variable—the *perceived agency* of the individual who is being observed experiencing physical pain—may contribute to (or mitigate against) the likelihood such instances of somatosensory contagion can be gleaned from recent results of an event-related functional MRI investigation conducted by Akitsuki and Decety (2009). In this study, the *perceived agency* of an individual experiencing physical pain was manipulated by having study participants view video clips that depicted one *or* two individuals enacting pain-related scenarios (e.g., a hand being closed in a door). No facial expressions were visible on any of the video footage. For those clips involving two models, study participants were explicitly told that the individual *not* experiencing physical pain had intentionally *caused* the other model’s

pain (i.e., resulting in relatively *less* perceived agency being attributed to the model experiencing pain)—as opposed to the more implicit assumption of one-person videos, that the model had inadvertently caused his or her own pain (i.e., resulting in relatively *greater* perceived agency being attributed to the model).

Akitsuki and Decety (2009) found that participants' subjective pain ratings for all video segments were significantly higher—that is, judged to be *more* painful—when *two* models were present in the video. A positive correlation, in fact, was found between these higher subjective pain ratings and neuroimaging data that demonstrated increased hemodynamic activity in brain regions associated with *firsthand* experiences of physical pain (i.e., AI, ACC, somatosensory cortex) for pain scenarios involving two models. In other words, the social context—and, in particular, the *perceived agency* of the individual experiencing physical pain—appeared to modulate the extent to which observers also evidenced the neurophysiological correlates of firsthand pain processing (i.e., somatosensory contagion). Reductions in the perceived agency of the observed individual experiencing physical pain corresponded to *increased* activation of the *observer's* own neurophysiological pain matrix.

Before briefly discussing some additional findings from Akitsuki and Decety (2009) that may also be relevant to determining the range of interpersonal variables that tend to promote somatosensory contagion, I want to briefly highlight the fact that on the basis of these findings alone—with regard to the variable of perceived agency in individuals observed to be experiencing physical pain—psychotherapists are, once again, in a relatively unique position vis-à-vis their patients in that one's patients may be especially likely at certain times in a treatment to be perceived by their therapists as

*lacking agency*, especially with regard to those *painful*<sup>23</sup> areas of patients' lives that may have brought them to psychotherapy in the first place. Therapists' perceptions regarding patients' lack of agency may be especially pronounced in cases of psychological trauma—where patients' past experiences involving a lack, or loss, of agency would be among the defining aspects of these patients' psychopathology. Nevertheless, according to Akitsuki and Decety's research, assuming such a perspective with regard to one's patients constitutes an additional contextual variable that potentially predisposes psychotherapists to being relatively more likely (as compared to more typical human interactions) to evidence the neurophysiological correlates of firsthand experiences of physical pain.

Another important finding of Akitsuki and Decety's (2009) was that study participants (i.e., observers) were found to exhibit significantly increased neural activity in brain regions *not* associated with the pain matrix—namely, the left inferior frontal gyrus (IFG) and the left amygdala—during experimental conditions that simulated *reduced* perceived agency of a model experiencing physical pain. Essentially, Akitsuki and Decety argued that these non-pain-related neural activations reflected relatively increased demands for top-down processing in terms of *social cognition* (i.e., associated with the left IFG) and *affect regulation* (i.e., associated with the left amygdala via connectivity to cortical structures) inherent to the task of observing an interpersonal

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<sup>23</sup> Here, I have purposefully not qualified psychotherapy patients' "painful" experiences as being physical or emotional for two reasons: 1) Saarela et al.'s (2007) findings with regard to the role of pain-evocative *facial expressions* in potentiating empathic pain processing would seem to suggest at least some "blurring of the lines" between observers' perceptions of primarily physical vs. primarily emotional pain in others (that is, because "painful" facial expressions are not so easily distinguished by observers on the basis of their physical vs. emotional antecedents), and, 2) Eisenberger et al. (2003)—whose research will be discussed in more detail—have found that at least some *emotionally*-painful experiences (e.g., "social pain") are processed neurophysiologically very similarly to *physically*-painful events.

scenario in which one individual was causing physical harm to another.

Akitsuki and Decety (2009) also described certain “selective connectivity” patterns found between participants’ left amygdalae and cortical structures across various pain-related conditions. For example, they reported that:

“Stronger connectivity between the left amygdala and the ventromedial prefrontal cortex was found when participants perceived painful situations caused by another individual relative to situations where pain accidentally occurred” (p. 732).

Given that overall neural activity in participants’ left amygdalae was also significantly increased in the “pain caused by other” condition, Akitsuki and Decety speculated that:

“Connectivity between the temporal cortex and the amygdala suggests a *top-down control* in the processing of social cues that could actively *inhibit* the expression of defensive strategies” (p. 728; emphasis added).

In other words, what these additional findings of Akitsuki and Decety (2009) illustrate most clearly, I would argue, is the extent to which certain *top-down* cognitive processes associated with empathy—that is, assessing another person’s intentions, level of personal agency, or, even more immediately, simply differentiating this other person from oneself (i.e., social cognition) and effectively modulating one’s automatic defensive responses to threatening stimuli (i.e., affect regulation)—become especially relevant additional variables in determining the degree to which observers of others experiencing physical pain might, otherwise, be susceptible to the ‘full force’ of *bottom-up* processes associated with empathy (i.e., relatively automatic tendencies to mimic at a neurophysiological level the affective *and* sensory experiences of others).

In terms of the psychotherapy situation, I would propose that the extent to which clinical circumstances inhibit—that is, bring about the disregulation or *dissociation* of—therapists’ abilities to effectively employ such top-down mechanisms associated with empathy including social cognition and affect regulation would, therefore, necessarily increase the likelihood of somatosensory contagion. These odds might be further amplified, of course, by the coincidence of other predisposing factors including: a patient’s particularly *intense* experience of physical pain (Avenanti et al., 2005), a therapist’s tendency to put him or herself in the ‘mental shoes’ of this particular patient (Jackson et al., 2006), the therapist’s access to this patients’ pain-evocative *facial expressions* (Saarela et al., 2007), and the extent to which a therapist perceives his patient to lack personal *agency* (Akitsuki & Decety, 2009).

Two recent social neuroscience investigations that have further illuminated the ‘balancing act’ that takes place between *bottom-up* and *top-down* processes associated with empathic pain perception—and, which, I believe, have special relevance to the psychotherapy setting—specifically examined *physicians’* empathic pain perception (Cheng et al., 2007) and physicians’ differential employment (as compared to non-physicians) of certain affect-regulatory mechanisms when observing physically painful experiences of others (Decety et al., 2010). In general, these investigations have reinforced existing neuroscience-based models of empathic functioning that posit an important regulatory role for *top-down* processes in modulating *bottom-up* tendencies to simulate others’ experiences and expressions of intense physical pain—even at relatively immediate somatosensory levels.

Employing functional MRI-based recordings, Cheng et al. (2007) found that physicians (i.e., acupuncturists) displayed markedly different neural activation

patterns—compared to non-physician controls—in response to brief video clips depicting painful and non-painful physical stimulation of models' hands and feet. In contrast to the non-physician control group whose activation patterns conformed with expectations based on earlier research in demonstrating significant activation of the pain matrix, physicians evidenced no such activation in brain regions associated with the firsthand experience of pain. Rather, the physicians in this study evidenced significantly increased activations in cortical areas associated with attention, self-regulation, and executive functioning—including the dorsolateral and medial prefrontal cortex, pre-central superior parietal and temporo-parietal junction. Cheng et al. reasoned that such markedly distinct activation patterns in response to observations of physical pain in others not only demonstrated the modulating impacts of executive functioning and, in particular, affect-regulatory processes on empathic pain perception, but also suggested for the first time that an individual's level of *expertise* (i.e., significant earlier exposure to such pain-eliciting stimuli) could dramatically alter his or her subsequent neurophysiological responsiveness to another person's experience of pain.

Utilizing a neuroimaging modality that is more sensitive than functional MRI to the particular temporal patterns of neural activity (i.e., EEG-patterned measurements of event-related potentials), Decety et al. (2010) extended Cheng et al.'s (2007) findings by determining more precisely *where* along the specific neural pathways activated by empathic pain scenarios physicians were seemingly able to *down-regulate* their responsiveness to others' pain. Comparing event-related potentials (ERPs) of physicians versus non-physicians—in this case, responses to viewing still images of human body parts in painful and non-painful circumstances—Decety et al. found two specific differences in neural activation patterns corresponding to what they termed “early” and

“late” effects—that is, two particular loci of regulatory neural activity in physicians’ brains that appeared to underlie their greater ability (than control subjects) to “suppress” the influences of bottom-up empathic pain processing:

“control participants showed a short-latency frontal N110 and a long-latency centro-parietal P3 response differentiating the painful from the non-painful situations whereas no such differentiation occurred in the physicians. This result lends support to the notion that *the temporal dynamics of empathy for pain comprise both an early vicarious component and a late cognitive evaluation, both of which seem to be suppressed by medical expertise or familiarization in physician participants*” (p. 1681; emphasis added).

Note, in particular, Decety et al.’s (2010) suppositions regarding the impact of physicians’ “medical expertise or familiarization” (p. 1681) as promoting an *acquired* ability to down-regulate their automatic neurophysiological-level responsiveness to others’ pain—and, therefore, reduce their tendency to manifest “counterproductive” (p. 1682) instantiations of firsthand experiences of physical pain in relation to their patients’ experiences of physical pain:

“The somatic sensorimotor resonance in pain processing areas between other and self may trigger empathic concern and feelings of sympathy...[b]ut the same signals may also constitute a threat to the individual that can lead to personal distress (i.e., feelings of discomfort and anxiety) or even compassion fatigue. If not regulated, this distress can be costly, both physiologically and cognitively, in its impact on the individual's wellbeing, and can eventually conflict with their capacity of being of assistance to the other” (p. 1676; emphasis added).

Decety et al. provided the following concluding remarks to further contextualize their findings:

“[M]edical expertise down-regulates the *sensory* processing elicited by the perception of pain in others. This down regulation occurs at an early stage (N110), which is thought to reflect the automatic emotional sharing component of empathy. Effective emotion regulation is essential for physicians exposed to the suffering of others because it dampens counterproductive feelings of alarm and fear and frees up processing capacity to be of assistance for the other” (p. 1682; emphasis added).

Interestingly, however, Decety et al. (2010) added the following rather provocative but unelaborated caveat to their conclusions:

“Unfortunately, however, there may be a price to pay in terms of concomitantly underestimating the pain that the other is feeling.” (p. 1682).

Most essentially, perhaps, Decety et al. (2010; see also, Decety & Jackson, 2004; 2006; Jackson et al., 2005; 2006) have proposed, and provided increasing empirical evidence to support, a *dissociative* model of empathy—that is, a model that posits multiple dissociable mechanisms that contribute to normal empathic functioning. From this perspective the concept of empathy can be viewed as a *functional* ‘balance’ between automatic bottom-up processes that promote shared motor, affective, and, even, *sensory*-level neural representations and corresponding top-down processes that exert a regulating influence on these co-occurring bottom-up mechanisms. Implicit in this model, and rather clearly demonstrated, I believe, in Decety et al.’s study comparing physicians to non-physicians in terms of empathic pain perception, is the potential for the various underlying mechanisms contributing to empathic functioning to become relatively *dissociated*—that is, no longer manifesting in such a *functional* relationship to

each other<sup>24</sup>. In one of their earlier publications, in fact, Decety & Jackson (2004) speculated on certain *dysfunctional*—or, *dissociated*—arrangements between the various *dissociable* mechanisms constituting empathy, focusing in particular on certain psychopathological conditions such as anti-social personality and autistic-spectrum disorders.

In light of their clear and consistent theoretical perspective, Decety et al.'s (2010; see also, Decety & Jackson, 2004; 2006; Jackson et al., 2005; 2006) relatively unelaborated caveat (see above) becomes particularly interesting to contemplate—that is, in terms of what they imply may inevitably be gained, or lost, by striking such a *contextually-determined* 'functional balance' vis-à-vis dissociable empathic processes. It is here, I would argue, that Decety et al.'s (2010) findings may have particular relevance to the psychotherapy setting.

Like physicians, psychotherapists must also learn to strike an appropriate 'functional balance' between sufficiently empathizing with patients' experiences while not becoming consumed by them. However, I would once again suggest that psychotherapists' particular position vis-à-vis their patients and the treatment process makes such a 'functional balance' exceedingly more complicated—especially to the extent that patients' perceptions that they are, indeed, being empathized with at deeply

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<sup>24</sup> I am not implying that physicians' reduced sensitivities to their patients' experiences of physical pain (Decety et al., 2010) are necessarily dysfunctional. Being able to non-consciously "down-regulate" one's neurophysiological responsiveness to observing others' pain may, on the contrary, be quite *functional* when one is regularly in a position to witness, or even inflict, physical pain in relation to one's patients. What I am emphasizing, rather, is the potential for the dynamic balancing of bottom-up and top-down processes that constitutes normal empathic functioning to become relatively *dissociated* in certain contexts—such as those, evidently, endured by physicians in relation to their patients. The extent to which these particular "dissociations" could be deemed *dysfunctional* depends upon the extent to which such "down-regulation" of empathic pain perception interferes with physicians' broader medical objectives vis-à-vis their patients (i.e., long-term pain relief, improved life-expectancy, quality-of-life, etc.).

personal levels are often seen by contemporary psychotherapists as one of the most mutative aspects of the psychotherapy enterprise. In other words, from the perspective of psychotherapists' unique treatment-related objectives, a critical question arises as to whether such relatively extreme affect-regulation—such as Decety et al. (2010) found evidence of in their physician cohort, who were able to dramatically minimize the neurophysiological impacts of bottom-up empathy-related processing in relation to others' painful experiences—would constitute a 'functional balance' for psychotherapists or, in any way, be beneficial to patients of psychotherapy.

Additionally, I would argue that Decety et al.'s findings raise important issues with regard to psychotherapy training models, especially given that psychotherapists-in-training would be expected to be much more likely to err on either side of such a 'functional balance'—and would, therefore, find themselves more vulnerable to the effects of *under*-regulation of bottom-up processes associated with empathy at one point or another, which could include instances of *somatosensory contagion* in relation to one's patients.

However, I would also like to suggest—and will, in fact, further elaborate these ideas in subsequent chapters—that, unlike the practice of medicine perhaps, the psychotherapy process benefits not so much from clinicians striking a relatively-*fixed* 'functional balance' in terms of empathizing with patients' emotional and physical experiences, but from their being able to flexibly and *sensitively* navigate the broadest possible range of various manifestations of one's empathic experiences in relation to patients—including, I would argue, relatively atypical *somatosensory*-level resonances that may be more likely to occur only under extreme clinical circumstances. For this reason, I believe that it is imperative that psychotherapists become and remain *aware*

of the *range* of manifestations one's empathy can assume—including relatively idiosyncratic physical sensations or physiological symptoms corresponding to one's work with particular types of patients under relatively extreme circumstances.

One final implication of Decety et al.'s (2010) findings—regarding the impact of an observer's affect-regulatory capacities on his or her empathic pain perception—is that physical pain scenarios tend to be subjectively rated as more painful as a function of reduced affect-regulatory functioning. In other words, Decety et al. found that there was a significant negative correlation between pain-intensity ratings ascribed to still photographs depicting another person's painful experience and neurophysiological indications of activity in brain regions associated with *top-down* executive and affect-regulatory functioning—namely, the dorsolateral and medial prefrontal cortex, pre-central superior parietal and temporo-parietal junction.

Of course, Decety et al. (2010) were conceptualizing affect-regulatory capacities within this particular experimental design as a relatively stable *trait* of their physician cohort—that is, a variable that was likely to characterize these particular study participants who had presumably been exposed throughout their training to many earlier observations of patients in physically-painful situations. However, as psychotherapists know well, the extent to which one's affect-regulatory capacities may be effective (or not) can also be determined by less-stable *situational* factors and, therefore, might also be conceptualized as a *state*-level characteristic that, I would argue, could also exert an influence upon individuals' relatively *situation-specific* capacities for empathic pain perception.

In fact, such a *situational*, or *state*-based, contextualizing of the affect-regulatory influences on empathic pain perception was also suggested by the findings of Akitsuki

and Decety (2009). Recall that within a particular social context—namely, one that aroused increased affectivity (i.e., viewing someone causing physical pain to another person) and, therefore, placed greater demands on subjects' capacities for affect regulation—Akitsuki and Decety found that participants' perceptions of the intensity of the pain they had observed *and* their neurophysiological responsiveness to such pain scenarios increased. Furthermore, a series of behavioral investigations has also found that exposing individuals to unpleasant stimuli (e.g., depictions of disgust, fear, anger, or pain) tends to increase subjective evaluations of pain-intensity (Wunsch et al., 2003) while also reducing participants'—that is, observers'—overall pain tolerance (de Wied & Verbaten, 2001; Meagher et al., 2001).

All of this, I believe, further underscores what may be the most important implications of neuroscience-based empathic pain-related research for psychotherapists: the extent to which certain *situational* factors increase demands upon psychotherapists' *affect-regulatory* functioning can also be expected to: 1) exert an *incremental* influence upon therapists' subjective evaluations of their patients' pain-related experiences, 2) *increase* neurophysiological-level correlates of therapists' firsthand pain-related processing, and, furthermore, 3) *heighten* therapists' overall sensitivity (i.e., reduced pain-tolerance threshold) to physically painful stimuli. In other words, under the right set of clinical circumstances—that is, involving a given patient's relatively *intense* experiences of physical pain accompanied by significant additional demands upon the therapist' affect-regulatory capacities—existing social neuroscience research appears to suggest that the potential for somatosensory contagion would also increase.

Additional evidence of the neurophysiological links between affect-regulatory functioning and empathic pain perception—although, not necessarily *situationally-specific* in this particular case—come from a recent functional MRI-based investigation of empathic pain perception in individuals diagnosed with alexithymia. As expected, Moriguchi et al. (2007) found that, compared to normal controls, alexithymics—individuals who have difficulty identifying and expressing their emotional experiences—reported significantly lower subjective evaluations of others’ pain-intensities and, in particular, evidenced markedly reduced neurophysiological correlates of “mature empathy”<sup>25</sup> (p. 2232), such as lower neural activity in the dorsolateral prefrontal cortex (DLPFC) and caudal anterior cingulate cortex (ACC), when exposed to still photographs of others’ hands and feet in painful circumstances. These investigators noted that ‘mature’ empathy:

“requires emotional regulation (Eisenberg, 2000; Decety & Jackson, 2006; Decety, 2007), and the DLPFC is key region implicated in this process (Ochsner & Gross, 2005). It is thus logical to suggest that lateral prefrontal *hypoactivity* in [alexithymics] is associated with a deficit in *cognitive* (particularly executive/regulating) function in empathizing and evaluating other’s pain” (p. 2230; emphasis added).

Furthermore, with regard to the evidence of reduced neural activity in the ACC of alexithymics, Moriguchi et al. stated that:

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<sup>25</sup> Moriguchi et al.’s (2007) designation of ‘mature’—versus ‘immature’—empathy relies upon a conceptualization of empathy as constituted by various *dissociable* mechanisms. This, once again, includes *bottom-up* potentials and *top-down* regulatory processes that exert a balancing impact upon each other in ‘mature’ expressions of empathy—thus, producing the phenomenological experience of emotional resonance with another individual while, in particular, maintaining an awareness of one’s own distinct perspective and, therefore, one’s own distinct feelings and sensations.

“The locus of the ACC that was less activated in [alexithymics] in our study corresponds to the *cognitive* subdivision of the ACC that is involved in *second-order representation* or *awareness* (Lane 2000; Berthoz et al. 2002)” (p. 2230; emphasis added).

Interestingly, however, Moriguchi et al. (2007) found that their alexithymic cohort evidenced significantly *increased* neural activity in two specific brain regions—the right posterior insula and inferior frontal gyrus (IFG)—which would, therefore, appear to play important roles in what these investigators conceptualized as alexithymics’ less mature empathic functioning.

With regard to alexithymics’ relatively increased neural activation in right posterior insulae, Moriguchi et al. reasoned that earlier investigations (e.g., Craig, 2003) had found that:

“the dorsal posterior insula involves the primary (*not* meta-representational) interoceptive representation of the inputs of physiological condition from all tissues of the body, including pain, temperature, itch, sensual touch, muscular and visceral sensations, vasomotor activity, hunger, thirst, and “air hunger.” Thus, the posterior insula is related to *lower-level representation of the physical state*” (p. 2232).

On this basis, Moriguchi et al. speculated that

“stronger activity in the posterior insula in the [alexithymic] group indicates that individuals with [alexithymia] might be *stuck in lower-level representation of one’s own physical state*” (p. 2232; emphasis added).

Taken together, the particular “less mature” manifestations of empathic functioning observed in Moriguchi et al.’s (2007) alexithymic cohort, when exposed experimentally to empathic pain scenarios, can be characterized as involving increased

neurophysiological monitoring of “primary interoceptive” (p. 2232) *somatosensory* experiences, as well as the concomitant loss of one’s *cognitive perspective* vis-à-vis the observed individual. One would, therefore, expect alexithymics to exhibit *hyper-*functioning in terms of processing the firsthand *sensory-discriminative* components of merely observed or perceived painful experiences. At the same time, alexithymics would be relatively less able to either *distinguish* these experiences as originating in the other or to *elaborate* them in emotional terms—leading to the alexithymic phenomenological experience of being “stuck in lower-level representation of one’s own physical state” (p. 2232).

Additionally, Moriguchi et al. (2007) found that increased neural activity in the inferior frontal gyrus (IFG) of alexithymics corresponded with earlier investigations (Eisenberger et al., 2003; Eisenberger & Lieberman, 2003; 2004), which found that increased activation near the IFG was also associated with down-regulatory influences upon the dorsal ACC and corresponding reductions in “self-reported distress” (p. 2232). From this perspective, therefore, Moriguchi et al. interpreted their findings as evidence that:

“individuals with [alexithymia] might try to deny and suppress the negative emotional aspects of the painful picture stimuli, resulting in their discreet evaluation about pain in the task pictures” (p. 2232).

In other words, alexithymics may be more inclined (than non-alexithymics) to utilize an overly broad, relatively *immature* form of regulatory control—in this case, involving suppressive disruption of bottom-up empathic potentials—in the face of what might otherwise be experienced as highly disregulating instances of witnessing and, therefore,

being forced to process the affective *and* sensory-discriminative aspects of others' physical suffering. In fact, Moriguchi et al. explicitly linked this relatively 'immature' cascade of empathy-related processes associated with their alexithymic cohort to observations from developmental science with regard to mothers and infants, in suggesting that higher levels of "personal distress" (p. 2228) measured in their alexithymic cohort might also stem from:

"the experiences of another's distress as if it were one's own due to incapability of distinguishing the self-other difference. It is generally considered as a primitive form of empathic response in developmental science because the infant imitates the emotional distress of another but without an awareness of the other's situation or condition (Eisenberg 2000; Decety 2007; Lamm et al. 2007)" (p. 2228).

Returning to my earlier suppositions regarding the extent to which affect-regulatory mechanisms might *also* be considered a *situational* variable relevant to the psychotherapy setting, I would like to propose that Moriguchi et al.'s (2007) findings may, in fact, provide a neurophysiological template for that which potentially transpires in the brains of psychotherapists working with patients suffering from intense physical pain and under additional relatively *extreme* clinical circumstances—such as those that would exact significant demands upon therapists' self-regulatory and affect-regulatory functioning and, therefore, could conceivably result in somatosensory transmission phenomena.

In other words, I am suggesting that one possible outcome in these admittedly extreme clinical scenarios might be characterized as a kind of *pseudo-alexithymia* in the *therapist*—that is, the therapist's phenomenological experience would be more likely to become that of being "stuck" (p. 2232) in more *immature* forms of empathic functioning

that involve “lower-level representations” (p. 2232) of his or her *patient’s* painful experiences. As a consequence, the processing of these observed or perceived experiences occurs in a relatively *firsthand* experiential manner<sup>26</sup>. Furthermore, within the type of clinical scenarios I am describing, therapists—like alexithymics—might also be more likely to experience firsthand both the affective *and* sensory-discriminatory components of their *patients’* experiences. They might also be expected to rely upon *suppression*-related neural mechanisms that could tend to facilitate therapists’ experiences of such firsthand *sensory-discriminative* phenomena as relatively *dissociated* from the clinical process.

Thus far, I have purposefully focused on certain *interpersonal* contextual variables that have been demonstrated to facilitate the neurophysiological correlates of firsthand experiences of physical pain—including particular *sensory-discriminative* components of pain such as pain-intensity and localization—when perceiving another person’s experience of physical pain. These contextual variables include the extent to which the observer assumes the cognitive perspective of the observed, the extent to which the observer has immediate access to the facial expressions of the observed, and the extent to which the interpersonal situation alters either the perceived sense of agency of the observed individual or the affect-regulatory functioning of the observer.

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<sup>26</sup> Although beyond the scope of the current investigation, it is my intention to draw a parallel here between my characterization of therapists’ phenomenological experience during instances of *somatosensory transmission* and clinicians’ related, I believe, phenomenological experiences corresponding to other types of clinical transactions, such as have been described in relation to certain types of *countertransferences*, *projective* and/or *introjective identifications*, and, more recently, *therapeutic enactments*. In other words, while space does not permit me to elaborate these ideas in the present investigation, I do mean to suggest that this same neurophysiologically-based model of human empathic functioning, which I cite in relation to *somatosensory transmission phenomena*, may also be especially useful to elaborating current conceptualizations of a much broader range of psychotherapy-related *intersubjective* phenomena.

However, interpersonal factors are certainly not the only relevant category of contextual variables that might be expected to influence a particular interaction—and, whether such an interaction might (or might not) prove more likely to result in neurophysiological manifestations of an observer’s firsthand experiences of physical pain. Decety et al. (2010) findings related to the affect-regulatory capacities of physicians compared to non-physicians, I believe, bear at least in part upon *intrapersonal*—as opposed to *interpersonal*—variables that may also impact empathic pain perception.

A more thorough examination of the range of *intrapersonal* factors that may additionally facilitate aspects of empathic pain perception relevant to the psychotherapy setting—and, in particular, which might facilitate instances of somatosensory transmission phenomena—lies somewhat beyond the scope of the present investigation. My objectives for the current project have been organized around establishing the broadest possible conceptual framework—that is, one that would be relevant to the broadest sample of psychotherapists—for establishing a more coherent understanding of the: 1) incidence, and 2) contextually-determined precipitants of somatosensory transmission phenomena within general psychotherapy practice. Therefore, I have elected to focus primarily upon those relevant contextual variables that would largely be consistent throughout all forms of psychotherapy—and, for obvious reasons, most of these pertain to the *interpersonal* level of abstraction. Furthermore, a focus upon the *interpersonal* variables that characterize a particular psychotherapy situation can also be seen as more consistent with my complementary ambition of utilizing this investigation as a way of promoting more “thoroughgoing two-person” metapsychological perspectives (Wachtel, 2008) within the psychotherapies.

This should *not*, however, be interpreted as a dismissal on my part of the potential relevance of *intrapersonal* variables specific to individual therapists that might also facilitate instances of somatosensory transmission. I would, therefore, refer the reader to several very recent social neuroscience investigations that have, in fact, already begun to further investigate and illuminate additional *intrapersonal* factors that may be relevant to particular individuals' increased likelihood of evidencing neurophysiological manifestations of firsthand pain-related processing during empathic pain-related scenarios (Valleriani et al, 2008; Avenanti et al., 2009).

Before closing this review of the empirical literatures relevant to psychotherapy-related somatosensory transmissions, I want to briefly address two remaining issues that I view as especially relevant to my overarching objective of proposing, as thoroughly as possible, an empirically-grounded conceptual framework for better understanding these clinical phenomena. Each of these issues, I believe, can also be addressed to some degree by recent social neuroscience-based empirical investigations.

The first of these remaining issues is: the extent to which the preponderance of evidence compiled in this chapter of increased neurophysiological *activity*, while observing pain scenarios, within brain regions associated with firsthand experiences of physical pain *necessarily* constitutes evidence of observers' *conscious experiences* of physical pain-related phenomena in response to witnessing or perceiving others' painful experiences. Obviously, the question of observers' ability to "translate" such neural activations into relatively conscious *sensory* experiences has important implications for extending these primarily neuroscience-based findings to the clinical realm and, in particular, applying them to clinical phenomena such as somatosensory

transmission—which, of course, I have argued can involve therapists’ relatively *conscious* experiences of physical sensation in relation to their work with certain patients.

Another recent social neuroscience investigation of empathic pain perception has attempted to address this question (Osborn & Derbyshire, 2010). Noting that “a growing body of research has linked vicarious pain to somatosensory processing [which implies] shared emotional *and* sensory pain components” (p. 268; italics from original), Osborn and Derbyshire utilized functional MRI to examine whether certain individuals might, in fact, be relatively more predisposed than others to *consciously* perceive the sensory aspects of others’ physical pain.

Initially, on the basis of subjective verbal reports from “a large group of normal controls” (p. 268), Osborn and Derbyshire differentiated two groups of participants for the neuroimaging portion of the experiment: 1) a group of 10 “responders,” characterizing approximately one-third of the original group, who had reported “actual noxious somatic experiences”<sup>27</sup> (p. 268) in response to at least one of a series of images and brief video clips depicting other people in physically painful circumstances (e.g., an image of a diver smashing her head upon the high-diving platform as she began her descent into the pool), and 2) a group of 10 “non-responders,” whose response-pattern characterized the remaining two-thirds of the original group of participants, who had reported no such “somatic” painful experiences in response to the pain-evocative stimuli.

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<sup>27</sup> The investigators emphasized that they engaged in “extensive questioning of subjects and [made] significant effort to exclude responses restricted to visceral, or general unpleasant, feelings” (p. 271). They emphasized to all study participants that “the pain should be *felt* in the body and that general feelings of disgust or unease should *not* be recorded as *painful*” (p. 269; emphasis added).

In the functional MRI-based portion of Osborn and Derbyshire's (2010) investigation, participants, once again, viewed a series of painful and non-painful images. These investigators found significant differences of hemodynamic activation when comparing their two groups of participants. First of all, they reported: "brain activation was higher in all areas associated with the pain matrix for those who experienced pain compared with the non-responders who felt no pain" (p. 271). Furthermore, Osborn and Derbyshire also found that "responders" evidenced significant activation in brain regions associated with the *sensory-discriminative* aspects of pain processing—such as the primary and secondary somatosensory cortices—whereas "non-responders" showed no activation in these areas of neurophysiological pain matrix. Osborn and Derbyshire concluded:

"Our study provides convincing evidence that a *significant minority of normal subjects* can share not just the emotional component of an observed injury but also the *sensory* component...the current study provides good evidence that that these regions [i.e., primary and secondary somatosensory cortices] are not just passively recording injury or threats to tissue but are *actively generating painful experience*" (p. 271; emphasis added).

The second, and last, remaining issue that I believe should be addressed is: the extent to which the compiled social neuroscience-based research findings relevant to observing or perceiving intense *physical* pain in others might *also* be relevant to a much more common psychotherapy-related scenario—clinicians' observation or perception of and, therefore, empathy for patients' experiences of relatively intense *emotional* pain. I want to state at the outset of discussing this particular issue that I do *not* believe it is absolutely crucial to the construction of an, otherwise, comprehensive neurophysiologically-based and empirically-grounded conceptualization of

psychotherapy-related somatosensory transmission phenomena. After all, many of the examples of somatosensory transmission that were cited in the previous chapter involved psychotherapists who were, in fact, empathizing with specifically *physical*, and physically *painful*, aspects of their patients' experiences.

I raise this issue, however, primarily as a way of acknowledging what I view as a rather distinct impression, at least among the limited number of clinician-theorists who have written on this subject (see Chapter 2), that instances of psychotherapy-related *somatosensory transmission* tend to involve patients' relatively intense-but-unelaborated *affective* experiences of pain. In fact, a series of social neuroscience-based investigations of, in particular, the concept of "social pain" has provided some empirical bases for such an *expanded* definition of patients' painful experiences vis-à-vis somatosensory transmission phenomena.

Eisenberger et al. (2003; see also, Eisenberger & Lieberman, 2004) have utilized functional neuroimaging to investigate neurophysiological manifestations of research participants' experiences of a particular type of *emotional pain*-related phenomena that they have called "social pain." What these investigators found was that experiences of social exclusion can tend to activate the very same brain regions that are primarily associated with processing *physically* painful experiences—namely, according to Eisenberger et al., portions of the anterior cingulate cortex (ACC) associated with the pain matrix.

Although I was not able to find specific evidence of *social pain*-related experimental scenarios that resulted in neural activation of *somatosensory-specific* regions of the pain matrix, I would argue that this research, at the very least, raises important questions regarding whether empathizing with one's patients' experiences of

relatively intense *emotional* pain—perhaps, especially, their experiences of rejection, social exclusion, or even experiences of ‘self-rejection’ so often reflected in patients’ expressions of shame—may not amplify existing potentials for *somatosensory contagion* within the psychotherapy dyad.

### Summary

My overarching objective in this chapter has been to establish a more coherent and, in particular, empirically-grounded conceptual framework from which to promote increased consideration of the incidence and relevance of somatosensory transmission phenomena by broader communities of psychotherapists. Such a revised and improved conceptual framework, I have argued, would further enable clinicians to attend to these clinical phenomena in psychotherapy practice by allowing them to better understand: 1) *how* psychotherapy-related somatosensory transmissions might take place, in particular, at *neurophysiological* levels of abstraction, and 2) under *what* specific set of clinical circumstances this particularly dramatic range of clinical phenomena (as documented in Chapter 2) might be more or less prone to occur.

In response to this first issue—of *how* somatosensory transmissions may be facilitated by underlying neurophysiological processes and potentials—I have attempted to establish credible links between the particular phenomenology of psychotherapy-related somatosensory transmissions and what is currently known with regard to broader potentials associated with human empathic functioning. More specifically, I have focused upon a particular body of recent social neuroscience-based empirical investigations into human empathic functioning that has found overwhelming support for the existence of relatively hardwired perception-action, perception-affect,

and, most recently, *perception-sensation* mechanisms that, together, constitute a range of *bottom-up* neurophysiological processes and potentials associated with normal empathic functioning.

With regard to the second issue—that is, determining to the extent possible *which* particular contextual variables (clinical circumstances, in the case of the psychotherapy situation) are likely to facilitate such perception-sensation couplings—I have closely examined a growing body of social neuroscience-based investigations into *empathic pain perception*. On this basis, I was able to identify several specific contextual variables that have been found to increase or decrease the likelihood and relative intensities of such neurophysiologically-mediated *perception-sensation* mechanisms—also referred to throughout this chapter as *somatosensory contagion*<sup>28</sup>. Furthermore, I have paid special attention to Decety and Jackson’s (2004) *dissociable* model of human empathy for what I see as its potential to inform the particular circumstances under which *bottom-up* potentials and *top-down* regulatory processes associated with normal empathic functioning may be expected to become *dissociated*—therefore, leading to relatively disregulated empathic functioning and, potentially, manifesting in the increased likelihood of psychotherapists’ experiences of somatosensory transmissions.

On the basis of an extensive review of recent social neuroscience investigations of empathic pain perception, I have argued that the following composite emerges relative to the particular contextual variables that appear most likely to elicit experiences of somatosensory contagion—that is, relatively increased neurophysiological activity in brain regions responsible for processing firsthand

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<sup>28</sup> Hatfield et al.’s (1994; 2011) term, “emotional contagion,” has been defined as encompassing the relatively automatic *motor* and *affective*, as opposed to *sensory*, components of empathic processing.

somatosensory and somatomotor experiences in observers of *other individuals* experiencing physical pain. The relative likelihood of somatosensory contagion increases as a function of: 1) the *perceived intensity* of the physical pain being experienced by the other individual (Avenanti et al., 2005; 2006; Bufalari et al., 2007); 2) the extent to which the observer is relatively constrained in relation to having to take a *first-person perspective* on the observed individual's painful experiences (Jackson et al., 2006); 3) the extent to which the observer is exposed to particularly evocative interpersonal cues, such as facial expressions, as to the intensity of the other individual's painful experience (Saarela et al., 2007); and 4) the relative *lack of perceived agency* of the other individual who is experiencing physical pain (Akitsuki & Decety, 2009).

Additionally, certain *intrapersonal* variables specific to the observer of another individual's painful experiences have also been found to *reduce* the observer's tendency to experience the effects of somatosensory contagion. These include the observer's relatively stable *trait*-based affect-regulatory abilities, especially with regard to specifically observing others in physically painful scenarios (Decety et al., 2010), as well as more *situationally*-determined aspects of overall affect-regulatory functioning (Akitsuki & Decety, 2009; see also, de Wied & Verbaten, 2001; Meagher et al., 2001; Wunsch, et al., 2003).

I have also suggested that, based upon the preponderance of research findings from recent social neuroscience investigations of empathic pain perception, there are many relatively fundamental aspects of the typical psychotherapy situation that may, in fact, predispose psychotherapists *generally* to an increased likelihood of experiences associated with somatosensory contagion in relation to their work with patients. These

include tendencies among psychotherapists to: 1) work with individuals who may be experiencing relatively *intense* pain (if not always *physical*, per se); 2) assume a *first-person perspective* when attempting to empathize with patients' painful experiences; 3) be exposed to, or even encourage, the expression of evocative interpersonal cues, such as *facial expressions*, associated with patients' painful experience; and 4) perceive one's patients as *lacking agency*, perhaps especially in cases of prior traumatization. I have also highlighted particular challenges that psychotherapists face vis-à-vis their own empathic functioning—especially in terms of striking an appropriate 'functional balance' between providing one's patients with sufficiently therapeutic levels of empathic concern while also maintaining one's own cognitive perspective.

Considering the relatively unique demands placed upon psychotherapists to flexibly and sensitively navigate the dynamic balancing of bottom-up and top-down processes associated with empathy, I have also emphasized the specific potential for additional contextual variables—such as those that might, even momentarily, alter a particular psychotherapist's normal capacities for affect regulation—to potentially facilitate somatosensory contagion. Although the primary focus of the next chapter (Chapter 4) will be on elaborating a "thoroughgoing two-person" (Wachtel, 2008) clinical approach to recognizing and working with somatosensory transmission phenomena, I will also continue to elaborate specific clinical variables that, I believe, might be expected to impact clinicians' moment-to-moment affect-regulatory functioning—and, therefore, to further potentiate psychotherapy-related somatosensory transmission phenomena.

## CHAPTER FOUR

Somatosensory Transmission Phenomena – A “Thoroughgoing Two-Person”  
Conceptual Framework Informed by Contemporary Social Neuroscience

“The fact was overlooked that, in order to express it, the body must in the last analysis become the thought or intention that it signifies for us” (Merleau-Ponty, 1962; p. 197).

“For now we see through a glass, darkly; but then face to face; now I know in part; but then shall I know even as I am known” (Paul, I Corinthians 13.2).

In the previous chapter, I focused on the first two of my three primary research questions—that is, 1) *how* somatosensory transmissions might be understood to take place, especially with regard to underlying neurophysiological processes and potentials, and 2) in *which* particular contextual circumstances might these phenomena be most likely to occur. I reviewed empirical research literatures relevant to human empathic functioning and empathic pain perception for their potential relevance to formulating a neurophysiologically-grounded conceptualization of psychotherapy-related somatosensory transmission phenomena. Based on a growing number of recent social neuroscience investigations into empathic pain perception, I argued that the psychotherapy situation constitutes a relatively unique set of real-life circumstances corresponding remarkably to a set of interpersonal variables that has been demonstrated to facilitate “somatosensory contagion”—that is, the neurophysiological

correlates of shared *sensory* experiences in both observers (e.g., clinicians) and individuals who are perceived to be experiencing relatively intense pain (e.g., patients).

However, as psychotherapists know well, somatosensory transmissions—at least, dramatic instances of these phenomena such as were described in Chapter 2—remain relatively uncommon occurrences within psychotherapy practice (although, perhaps, not as uncommon as we tend to think!). Therefore, in addition to briefly summarizing my arguments with regard to my first two research questions, I will also continue to provide some elaboration of the particular clinical variables that may have an incremental and cumulative impact in facilitating psychotherapy-related somatosensory transmissions—that is, relatively atypical clinical manifestations of therapists’ own physical sensations occurring in direct and meaningful relationship to the perceived pain and suffering of patients.

The more novel objective of the present chapter, however, will be to discuss my final research question—that is, how can psychotherapy-related somatosensory transmission phenomena be conceptualized *in clinical terms* and, therefore, more effectively integrated into the theory and practice of psychotherapy. Therefore, in addition to formulating a clinical conceptualization of somatosensory transmission informed by Wachtel’s (2008) “thoroughgoing two-person” metapsychological framework, I will also offer several practical recommendations for attending to and working with somatosensory transmission phenomena in psychotherapy. In the next chapter (Chapter 5), I will also provide detailed case material that is intended to illustrate the present chapter’s more conceptual arguments, while further promoting psychotherapists’ increased awareness and integration of the potential for somatosensory transmission phenomena in clinical practice.

Research Question #1 – How are psychotherapy-related somatosensory transmissions even possible?

As documented in Chapter 2, surprisingly few of the clinician-theorists who have written about psychotherapy-related somatosensory transmissions have explicitly considered *how* these clinical phenomena occur, especially in terms of underlying neurophysiological processes and potentials. Earlier in this dissertation, I argued that our discipline's lack of a better conceptual framework vis-à-vis somatosensory transmission phenomena perpetuated an unfortunate status quo—epitomized by relatively isolated clinical depictions of these phenomena within the psychotherapy literature, relatively disorganized approaches to understanding and working with these clinical phenomena, and ongoing incredulity among broader communities of clinicians with regard to the potential importance of somatosensory transmissions to the theory and practice of psychotherapy. A desire to overcome this current state of affairs in our profession, therefore, served as one of the primary motivating forces behind my decision to examine empirical and, in particular, neurophysiologically-based research literatures that I hoped might lend credence to existing clinical publications relevant to somatosensory transmission phenomena, while also providing the basis for a more compelling, comprehensive conceptualization of these clinical phenomena.

My proposal for an empirically-based and neurophysiologically-grounded conceptualization of psychotherapy-related somatosensory transmissions was initially informed by my assessment of the considerable overlap between certain defining characteristics of this clinical category—namely, its *non-conscious, nonverbal, affective,* and *interpersonal* components—and the broader concept of empathy. It was on this

basis that I suggested somatosensory transmissions might be usefully considered in relation to recent neuroscience-based research on human empathic functioning.

Contemporary social neuroscientists have recently conceptualized human empathy as a constellation of “multiple dissociable information-processing mechanisms” (Decety & Jackson, 2006; p. 54; see also, Singer et al., 2004; Blair, 2005)—including bottom-up perception-action mechanisms that promote relatively immediate, automatically-shared, neural representations associated with firsthand motor, affective, and sensory experiences, as well as top-down control processes that serve, for example, to maintain one’s cognitive perspective and affect-regulatory functioning during empathic scenarios. Ideally, the normal integration of these various bottom-up and top-down processes manifests in what Decety and Jackson (2004) have described as mature empathy: “the naturally occurring subjective experience of similarity between the feelings experienced by self and others *without losing sight of whose feelings belong to whom*” (p. 71; emphasis added).

Social neuroscientists have, however, also proposed more speculative models illustrating particular pathological implications of disregulation—or, dissociation—of these typically more integrated mechanisms associated with mature empathy. For the most part, these models—that is, various neurophysiologically-based conceptualizations of rather specific dysfunctional arrangements between bottom-up and top-down empathy-related processes, believed to characterize, for example, anti-social personality (Decety & Jackson, 2004; Blair, 2005), autistic-spectrum disorders (Decety & Jackson, 2004; Blair, 2005), or alexithymia (Moriguchi et al., 2007)—have tended to focus on relatively *stable* constellations of relatively disregulated or dissociated empathy-related processes.

A critical question, however, emerged relative to my interest in somatosensory transmission phenomena as I considered the implications of social neuroscientists' *dissociable* model of human empathic functioning (Decety & Jackson, 2004; 2006; Singer et al., 2004; Blair, 2005). Are there, perhaps, less stable, situational variables—consistent, for example, with the psychotherapy encounter—that might also be capable of facilitating the disregulation or dissociation of bottom-up and top-down neural mechanisms associated with empathy?<sup>29</sup> I reasoned that such *situationally-determined* empathic responses on the part of therapists to their patients could potentially be governed less by one's "mature" affectively-regulated and differentiated cognitive perspective than by one's relatively *disregulated* and *undifferentiated* motor, affective, and/or sensory-level experiences. Furthermore, if such situationally-determined disregulation of clinicians' normal empathic processes were indeed possible, I reasoned that the extent to which such episodes resulted specifically in *sensory* manifestations of dissociated empathic responses, in effect, determined whether these clinical episodes fit the particular phenomenology of somatosensory transmissions—that is, relatively idiosyncratic physical sensations that are subjectively experienced by the therapist, but which can be directly and meaningfully linked to one's clinical work with a particular patient within a particular psychotherapy situation.

Therefore, I reviewed multiple sources of empirical evidence in the previous chapter—especially regarding the neuroscience of empathic pain perception—which clearly suggested that certain *situational* variables could, indeed, influence the extent to

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<sup>29</sup> Although beyond the scope of the present investigation, I would suggest that answers to this question also have important implications for understanding the neural underpinnings of broader categories of psychotherapy-related *intersubjective* phenomena—including, for example, countertransferences, projective and introjective identifications, and therapeutic enactments—which are not necessarily characterized by their *somatosensory* features.

which both bottom-up and top-down neural mechanisms associated with empathy could become relatively disregulated. Relevant situational variables that have been found to facilitate both relatively increased and undifferentiated pain processing in observers of others who are perceived to be experiencing physical pain include: perceived pain-intensity (Avenanti et al., 2005; 2006; Minio-Paluello et al., 2006; Bufalari et al., 2007), cognitive perspective (Jackson et al., 2006), relative access to evocative social cues, such as facial expressions, reflecting painful experience (Saarela et al., 2007), and relative lack of perceived agency (Akitsuki & Decety, 2009)—all of which, I argued, were extremely relevant *situational* variables consistent with the psychotherapy situation. Additional interpersonal variables that have also been shown to modulate empathic pain processing include one's general capacities for effective affect-regulation (Decety et al., 2010), as well as more situation-specific demands or constraints placed upon normal affect-regulatory functioning (Akitsuki & Decety, 2009; see also, de Wied & Verbaten, 2001; Meagher et al., 2001; Wunsch, et al., 2003). In short, a growing number of *situational* variables—corresponding remarkably with the unique set of interpersonal circumstances that define the psychotherapy situation—have been demonstrated to significantly influence observers' (i.e., clinicians') physical sensitivity and first-person responsiveness to others' (i.e., patients') experiences of pain.

I would furthermore argue that the potential for such situational variables to determine the extent to which a clinician's normal empathic functioning might become relatively disregulated—or, in extreme cases, dissociated—makes all the more sense when one considers the many parallels that can be drawn between neurophysiologically-based models of empathy (Decety & Jackson, 2004; Singer et al., 2004; Blair, 2005) and neurophysiologically-based models of emotional functioning

(LeDoux, 2000; Davidson et al., 2003). Both, after all, have been conceptualized as relatively integrated constellations of *dissociable* information-processing mechanisms—consisting of both bottom-up potentials and top-down regulatory controls.

In fact, Decety and Jackson (2006) have suggested that significant overlaps exist between the set of neural mechanisms underpinning empathy and those involved in emotional functioning:

“[A]bundant evidence from behavioral and cognitive studies and functional-imaging experiments has indicated that individuals come to understand the emotional and affective states expressed by others with the help of *the neural architecture that produces such states in themselves*” (p. 54; emphasis added).

The specific nature of this overlap, in particular, with regard to the more immediate, automatic aspects of both empathic and emotional functioning, is further implied by Decety and Jackson’s (2004) many references to “*emotion sharing*” and “*emotional contagion*” (p. 77; emphasis added), which were used to characterize the specific functions—or, what Decety and Jackson describe as *dysfunction*, in the case of emotional contagion—of bottom-up processes and potentials associated with empathy.

Blair (2005) has, furthermore, suggested that similar cortical and sub-cortical neural pathways may also be involved in the potentiation and regulation of both emotional and empathic functioning:

“While there are indications that facial expressions are processed from visual cortex via temporal cortex and onto limbic areas (the cortical pathway: retinogeniculostriate–extrastriate–fusiform) there have also been claims of a subcortical pathway (retinocollicular–pulvinar–amygdalar); (Adolphs, 2002; de Gelder, Vroomen, Pourtois, & Weiskrantz, 1999; Morris, Ohman, & Dolan, 1999; Pizzagalli, Regard, & Lehmann, 1999). These two routes for expression

processing mirror those previously suggested to be involved in aversive conditioning (Armony, Servan-Schreiber, Romanski, Cohen, & LeDoux, 1997; LeDoux, 2000). Thus, information on conditioned stimuli during auditory fear conditioning can be mediated by projections to the amygdala from either the auditory thalamus or auditory cortex (Campeau & Davis, 1995; LeDoux, Sakaguchi, & Reis, 1984; Romanski & LeDoux, 1992a, 1992b). The subcortical route is thought to provide coarse stimulus processing while the cortical route is thought to allow more precise stimulus encoding and allow discrimination learning (Armony et al., 1997; LeDoux, 2000)" (pp. 701-702).

I emphasize these parallels between contemporary neurophysiologically-based models of emotional processing and empathy in order to make what might sound like a rather obvious point: empathic functioning, relying as it does upon many of the same underlying neural mechanisms as affective processing, would also be expected to become vulnerable to dysregulation under the same types of situational circumstances that would be expected to provoke dysregulation and dissociation of emotion processing—that is, under conditions that clinicians tend to associate with psychological trauma.

Therefore, I think it is reasonable to suggest that psychotherapists who happen to be working with patients who are experiencing or who have experienced overwhelming traumatic levels of pain—regardless of whether these painful experiences are primarily emotional or physical—would generally be among those most predisposed to dysregulated and, potentially, dissociated *empathic* functioning. Dysregulated or dissociated empathic responses to one's patients are, by definition, more likely to manifest in the relatively split-off motor, affective, and/or sensory components of one's normally-integrated empathic functioning. Furthermore, the extent to which a therapist experiences relatively dysregulated or dissociated empathic functioning in relation to a given psychotherapy encounter would also be expected to

correspond with the therapist's subjective phenomenological experience (of his or her empathic functioning) as relatively idiosyncratic, undifferentiated, and, therefore, *self-reflexive* (e.g., "why am *I* experiencing pain?").

Thus far, I have intentionally constructed my arguments so as to characterize the broadest possible range of patients' "pain" and, therefore, the broadest possible range of therapists' potentially disregulated or dissociated empathic responses to such pain—including any combination of relatively idiosyncratic, firsthand somatomotor, affective, and/or somatosensory experiences. However, just as one expects the nature of normal empathic responses to be governed by particular aspects of the other person's perceived experiences (e.g., physical vs. emotional qualities of pain), the particular manifestations of a therapist's disregulated empathic response, I believe, should also be expected to depend largely upon these perceived aspects of his or her patient's experience.

On this basis, I would suggest that a therapist working with a patient who is suffering from extreme *physical* pain, or for whom physical pain has been a source of past traumatization, would be relatively more predisposed to manifest idiosyncratic, undifferentiated *somatomotor* or *somatosensory* components of one's normal empathic response. Whereas, clinical work with a patient who is suffering, or who has suffered, from significant emotional pain should generally be perceived as more likely to potentiate a therapist's split-off *affective* components of empathy<sup>30</sup>—at least, to the extent that the therapist's empathic functioning with this particular patient becomes relatively disregulated or dissociated. To some extent, this might help to explain why

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<sup>30</sup> Psychotherapists have often conceptualized this range of relatively disregulated or dissociated *affective* empathic responses to one's patients in terms such as countertransference, projective and/or introjective identifications, and, more recently, as the impetuses for therapeutic enactments.

many of the clinical illustrations of somatosensory transmission phenomena described in Chapter 2 did, in fact, involve patients who were either experiencing physical pain or whose past experiences of extreme physical pain had become relevant to the treatment process (Jacobs, 1973; Thomson, 1980; Wieland-Burston, 1987; Ragan & Siedes, 1990; Silverman, 1991; Sands, 1997a; Anderson, 1998; Trautmann-Voigt, 2001; Pozzi, 2003; Orbach, 2004; 2006; Sonntag, 2006; Stone, 2006).

The general suggestions I have proposed here—with regard to the precipitating influence of patients' *physical* pain symptoms in potentiating *physical* manifestations of disregulated empathic functioning in therapists—are largely supported by findings from several social neuroscience investigations of empathic pain perception (Avenanti et al., 2005; 2006; Minio-Paluello et al., 2006; Bufalari et al., 2007). Recall that in each of these studies, when participants observed relatively intense physical pain-evocative stimuli affecting a live model, they (i.e., participants) also evidenced: 1) increased neural activity in brain regions corresponding with *sensory-discriminative*, but *not* affective-motivational, aspects of pain processing, and 2) increased subjective appraisals of *sensory*, but *not* affective, aspects of the observed pain scenarios (i.e., increased “pain-intensity” ratings vs. unchanged “unpleasantness” ratings). In other words, as situational demands upon participants' affect-regulatory functioning increased—as a function of their witnessing more intense *physical* pain-evocative stimuli being applied to a live model—so too did the evidence of neurophysiological-level *dissociation* between the otherwise-integrated empathic functions of determining sensory-discriminative and affective-motivational qualities of a given empathic scenario.

In spite of such compelling neuroscience-based evidence—in support of my contentions that patients’ physical traumata tend to predispose therapists to more *physical* manifestations of disregulated empathy, whereas patients’ emotional traumata may be more likely to lead to *affective* manifestations of therapists’ disregulated and dissociated empathic functioning—I do want to temper these extremely general conclusions in two ways. First of all, psychotherapists know well that even relatively “emotional” variants of psychological trauma can very often have particular *physical* and *physiological* consequences for patients (Krystal, 1988; MacDougal, 1989; van der Kolk, 1994; Maier et al., 1994). While these physical and physiological sequelae of emotional trauma can often be traced to more general disruptions or disregulation in patients’ natural, healthy stress-response, such cases do, nevertheless, illustrate the complexly-intertwined and, ultimately, inseparable nature of the “physical” and “emotional” domains of human experience. Secondly, as was briefly alluded to in the previous chapter, social neuroscientists have recently discovered that certain categories of “emotional” pain tend to be processed, at least at the neurophysiological level, as “physical” pain (Eisenberger et al., 2003; Eisenberger & Liebermann, 2004 re: “social pain”). All of this is to assert and emphasize that, while general assumptions have been made in constructing this empirically-based, neurophysiologically-grounded conceptual model for psychotherapy-related somatosensory transmission phenomena, therapists must necessarily continue to integrate such conceptual “broad strokes” with many more subtle aspects of clinical work.

As a way of summarizing my conclusions with regard to *how* psychotherapy-related somatosensory transmissions can best be conceptualized in light of recent neurophysiologically-based empirical research, I want to refer back to my earlier

review and discussion of Anderson's (1998) case presentation involving a female patient named "Ellen" who suffered from chronic physical pain symptoms (Chapter 2; pp. 140-151). Critical to Anderson's treatment in this case, was the eventual formulation that—within the context of her patient's long history of overwhelming affective experiences and, therefore, her relative predisposition to highly dysregulated affective functioning—Ellen's chronic physical pain symptoms could be understood, in essence, as manifestations of extremely dysregulated affective functioning. Anderson based this clinical formulation in part on Krystal's (1988) conceptual model of affective functioning—which specifically posited multiple dissociable information-processing mechanisms that, when effectively integrated, constituted healthy affective functioning. Anderson came to understand Ellen's chronic pain symptoms as the relatively isolated, split-off "physiological component" (p. 317) of her patient's relatively disintegrated mechanisms for processing affective experience. Recall that it was also in this clinical context that Anderson described her own "countertransferential visceral somatic responses" (p. 307).

When I initially reviewed this case presentation (in Chapter 2), I praised Anderson's (1998) clinical descriptions for having effectively illustrated how certain clinical circumstances—in this case, working with the alexithymic and somatizing tendencies of a patient who had a relatively traumatic history of severely dysregulated affective functioning—could facilitate such dissociated "physiological components" of affective functioning:

"not only...for the patient, but *also*, at least temporarily, for the *therapist* who was attempting to empathize with his or her patient's affective experience" (Chapter 2; p. 149-150).

Based, however, upon my subsequent review of neurophysiologically-based research literatures relevant to empathic functioning and, in particular, empathic pain perception—I now wonder if it isn't more parsimonious and more accurate to simply suggest that, just as there is a potentially dissociable “physiological component” of human *affective functioning*, there also appears to be a potentially dissociable “physiological component” of human *empathic functioning*. As has been recently demonstrated by social neuroscientists, potentially dissociable components of empathic functioning consist of relatively hard-wired, non-conscious, bottom-up processes and potentials associated with automatically mirroring the motor, affective, *and* sensory experiences of others.

Therefore, like Anderson's (1998) formulation of Ellen's chronic pain symptoms as a manifestation of highly disregulated affective functioning—I am proposing that the “physiological core” of therapists' normal *empathic* functioning can also become disregulated and dissociated under extreme *empathic* circumstances and, therefore, at least sometimes, result in therapists' idiosyncratic physical sensations or physiological symptoms, which pertain directly and meaningfully to the psychotherapy process. It is to a more thorough examination of these particular clinical circumstances that I now turn.

Research Question #2: What clinical circumstances are likely to facilitate somatosensory transmissions?

Based on my review of the neurophysiologically-based literatures relevant to empathic functioning and empathic pain perception, I would now conceive of this

research question as having two parts: 1) what contextual variables, consistent with the psychotherapy situation, tend to facilitate somatosensory contagion and, therefore, might also be expected to predispose psychotherapists *generally* to somatosensory transmission phenomena in clinical practice?; and 2) what additional variables, beyond those that are relatively inherent to the psychotherapy situation, might be expected to further increase the likelihood of somatosensory transmission phenomena occurring within a given psychotherapy encounter?

I already addressed the first part of this research question in the previous chapter and, again, in the last section of this chapter. Therefore, my primary focus here will be on elaborating the second part of this question. I do this by considering the specific clinical circumstances that might be expected to correspond with relatively *extreme* manifestations of each of the contextual variables that has been demonstrated to correspond with somatosensory contagion in experimental empathic pain scenarios.

Once again, the specific contextual interpersonal variables that have been found to facilitate somatosensory contagion—that is, the neurophysiological correlates of shared sensory experiences—in empathic pain scenarios include: the *perceived pain-intensity* of a painful stimuli (Avenanti et al., 2005; 2006; Minio-Paluello et al., 2006; Bufalari et al., 2007), an observer's tendency to assume a *self-reflexive cognitive perspective* with regard to assessing another individual's painful experience (Jackson et al, 2006), an observer's relative access to *evocative social cues*, including facial expressions, associated with another individual's painful experience (Saarela et al, 2007), the *perceived agency* of an individual who is perceived to be experiencing physical pain (Akitsuki & Decety, 2009), and the relative situational demands placed upon an observer's *affect-regulatory functioning* (Decety et al., 2010; Akitsuki & Decety,

2009; see also, de Wied & Verbaten, 2001; Meagher et al., 2001; Wunsch, et al., 2003).

All of these variables, I have argued, tend to be extremely relevant to the psychotherapy situation generally. Here, however, I will consider how each of these variables may interact with relatively extreme clinical circumstances to further promote the potential for somatosensory transmission phenomena.

Acknowledging, of course, that no specific “formula” can be developed for anticipating when psychotherapy-related somatosensory transmissions will (or, will not) occur, I would suggest that the categories of clinical circumstances that I discuss below should be understood as having an incremental and cumulative impact on predisposing particular psychotherapy dyads to experiencing clinically-relevant somatosensory transmissions.

#### *Perceived Pain-intensity*

As stated earlier with regard to the conceptual model I proposed for understanding *how* somatosensory transmissions occur, I would first-and-foremost suggest that working clinically with patients who are themselves suffering from relatively intense physical pain, or for whom past experiences of relatively intense physical pain or distress may have become an important aspect of the psychotherapy process, should be considered among the primary predisposing variables associated with an increased potential for psychotherapy-related somatosensory transmissions.

Social neuroscientists have repeatedly demonstrated via experimental empathic pain scenarios that merely observing (or perceiving) another person’s experience of relatively intense physical pain tends to correspond with increased somatosensory-specific neural activity in oneself (Avenanti et al., 2005; 2006; Minio-Paluello et al.,

2006; Bufalari et al., 2007; Saarela et al., 2007; Lamm et al, 2008. Akitsuki & Decety, 2009; Decety et al., 2010). Furthermore, for at least a significant portion of normal “observers,” increased somatosensory-specific neural activation during empathic pain scenarios coincides with observers’ conscious awareness of physical sensations (Osborn & Derbyshire, 2010).

This increased tendency for somatosensory contagion to occur within empathic pain scenarios *that specifically involve relatively intense physical pain* also corresponds to the specific clinical circumstances of many of the vignettes involving somatosensory transmission phenomena that were reviewed in Chapter 2 (Jacobs, 1973; Wieland-Burston, 1987; DaSilva, 1990; Ragan & Seides, 1990; Silverman, 1991; Anderson, 1998; Alhanati, 2004; Orbach, 2006; Sonntag, 2006; Laine, 2007). In other words, all of these clinician-theorists have described instances of somatosensory transmission phenomena that involved a therapist who happened to be working clinically—and were, therefore, in a position to empathize—with some rather prominent *physical* aspect of his or her patient’s past or present experience.

Once again, there are important reasons not to overemphasize the determinative potential of this one variable—a psychotherapy patient’s relatively intense physical pain or distress—on clinical instances of somatosensory transmission. After all, there were also many clinical examples of somatosensory transmission phenomena cited in Chapter 2, which did *not* refer specifically to a patient’s past or present physical pain and suffering (Thomson, 1980; Welles & Wrye, 1991; Agger, 1993; Sands, 1997; Stone, 2006). As I have also pointed out, Eisenberger’s (2003; see also, Eisenberger & Lieberman, 2004) functional MRI-based research has demonstrated that the same neurophysiological pathways responsible for processing firsthand experiences of

physical pain are also used for processing certain types of “emotional” pain—in particular, experiences of “social pain” such as being rejected, abandoned, and, I would argue, the closely-related phenomenological experience of “self-rejection” that often accompanies patients’ experiences and expressions of shame.

In other words—using terminology that is more familiar to clinicians—patients’ *attachment*-related traumas, including experiences that tend to arouse patients’ affective associations to past experiences of relatively extreme attachment-related distress, might also be expected to predispose particular psychotherapy dyads to somatosensory transmissions. In the case that will be presented in the following chapter, I have attempted to illustrate what I view as the potential complementary influences of these more “emotional” manifestations of pain—in particular, those associated with a patient’s experience and expressions of debilitating levels of personal shame—which, on the basis of Eisenberger’s (2003; see also, Eisenberger & Liebermann, 2004) research on “social pain,” may not only precipitate neurophysiological activity associated with the physical pain matrix in patients, but may also tend to be perceived and processed *by therapists*, at least at neurophysiological levels, in ways that are more akin to working with patients who are suffering from *physical* manifestations of pain.

### *Self-reflexive Cognitive Perspective*

In the previous chapter, I suggested that psychotherapists occupy a relatively unique real-life position vis-à-vis the tendency to explicitly assume a self-reflexive cognitive perspective with regard to the experiences of others—one of the particular interpersonal variables that has been correlated with increased evidence of

somatosensory contagion (Jackson et al., 2006). This general tendency among psychotherapists, I believe, is further amplified by contemporary clinical conceptualizations that have increasingly emphasized the considerable therapeutic benefits that may be associated with therapists' relatively more active, empathic reception of, and attunement with, their patients' past and present subjective experiences. In this section, however, I want to consider whether there might not be certain clinical circumstances that compel a therapist to even-more-readily-than-usual assume such a self-reflexive cognitive perspective with regard to one's patient—and, therefore, which might further predispose particular psychotherapy encounters to instances of somatosensory transmission.

Clinical scenarios involving patients who, for whatever reasons, are not able to sufficiently convey or elaborate their own subjective experiences may necessitate therapists' more active positioning of themselves within the "mental shoes" of their patients. This was clearly illustrated in Anderson's (1998) descriptions of her work with an alexithymic patient who had considerable difficulty articulating, or even expressing, her emotional experience (see Chapter 2; pp. 140-151). Recall, for example, the vivid, disturbing dreams that this patient often presented to her therapist with little else in the way of affective "clues," with which to better understand the patient's subjective experience, and the potential meanings, of such disturbing dream material. I would argue, in fact, that a similar scenario could reasonably be anticipated when working with any patient for whom accessing and integrating relatively intense, unprocessed, and disregulated affective experiences presents a particular clinical challenge.

However, this same type of self-reflexive cognitive perspective-taking on the part of therapists might also result from certain interpersonal variables such as cultural

or language-based disparities between patients and therapists. One could imagine, for example, a therapist feeling more compelled to utilize a self-reflexive cognitive perspective in situations where they might, otherwise, be having difficulty resonating with a particular patient's experience. At the other extreme, working intensively with a patient with whom one identifies strongly could also facilitate a therapist's increased tendency to assume such a relatively less-differentiated first-person perspective with regard to one's patient.

*Evocative Social Cues (e.g., facial expressions indicative of intense pain)*

Most contemporary psychotherapy orientations advocate, at least to some extent, therapists' attention to nonverbal modes of interaction and communication and, therefore, potential access to additional sources of information about patients' relative level of functioning and unarticulated experiences. However, beyond the obvious, inherent clinical advantages of attending to our patients' (and our own) nonverbal cues within the psychotherapy process, I would suggest that there are certain specific clinical scenarios in which it is especially important that therapists attend to their patients' nonverbal cues and communications. Furthermore, to the extent that observing evocative nonverbal cues of another person's painful experience—such as, for example, facial expressions suggestive of relatively intense pain—have been empirically demonstrated to *both* increase certain bottom-up empathic potentials associated with somatosensory contagion, *and* reduce certain top-down empathic processes associated with self-other differentiation (Saarela et al, 2007), I would argue that clinical circumstances which tend to necessitate psychotherapists' attunement to patients'

nonverbal indications of pain might also be expected to increase the likelihood of somatosensory transmission.

Once again, psychotherapists are generally inclined to attend to nonverbal modes of interaction and communication within the psychotherapy process as a means of accessing valuable additional sources of information regarding one's patients. I believe, therefore, that it stands to reason that therapists would be especially likely to rely upon such nonverbal sources of information about their patients when other, more typical registers of patients' subjective experience (i.e., patients' verbal representations) are not so readily available. This type of clinical scenario might be especially likely in psychotherapies with traumatized patients—that is, with patients who, by definition, have relatively more limited means of verbally symbolizing clinically-relevant past experiences. Other clinical scenarios in which therapists might also more-readily-than-usual tend to depend upon nonverbal sources of information about their patient would include working with: patients who have relatively limited verbal skills, patients who have relatively limited abilities to translate their affective experience into words (i.e., alexithymia), and, perhaps, patients whose cultural and idiomatic backgrounds differ from their therapist's (i.e., patients who may struggle to sufficiently symbolize their relevant subjective experience within the culture or language that the psychotherapy is being conducted).

#### *Perceived Sense of Personal Agency*

The extent to which we attribute a sense of personal agency to another person who is experiencing relatively intense pain has also been shown to influence somatosensory aspects of our own empathic response; reductions in perceived agency

tend to correspond with increased somatosensory contagion effects (Akitsuki & Decety, 2009). As was suggested in the previous chapter, psychotherapists are relatively more inclined than non-psychotherapists to perceive their patients—especially, perhaps, patients who are suffering (or who have suffered) from relatively intense experiences of pain—as *lacking* (or having lacked) personal agency. These perceptions about our patients, I would argue, are especially pronounced in cases of psychological trauma—that is, when working with patients whose experiences of overwhelming physical or emotional pain *necessarily* involved the relatively extreme loss (or lack) of personal agency.

However, one could also imagine this particular empathic pain-related variable—that is, reduced attributions of personal agency—corresponding generally to one’s clinical work with children and/or individuals with developmental disabilities. On this basis, I would suggest that, in addition to work with psychological trauma, psychotherapies involving children and patients with developmental disabilities—or, patients who have endured severe physical or emotional trauma in childhood—should also be considered for their relative potential to predispose psychotherapists to somatosensory transmission phenomena in clinical practice. Many of the clinical illustrations of somatosensory transmission phenomena reviewed in Chapter 2, in fact, described psychotherapies that involved either developmentally-disabled child patients (Pozzi, 2003; Zanocco, 2006) or adult patients that had endured severe childhood trauma (Jacobs, 1973; Wieland-Burston, 1987; Ragan & Seides, 1990; Anderson, 1998; Knoblauch, 2000; Alhanati, 2004; Orbach, 2006; Sonntag, 2006; Laine, 2007).

### *Situational Demands on Therapists' Affect-regulatory Functioning*

Specific situational demands upon one's affect-regulatory functioning in empathic pain scenarios—for example, experimental scenarios that exposed participants to affective stimuli intended to evoke feelings of disgust, fear, anger, or pain (de Wied & Verbaten, 2001; Meagher et al., 2001; Wunsch et al., 2003), or which had subjects observe relatively more complex pain-related scenarios such as those involving *both* an individual experiencing pain *and* an individual who *caused* another's pain (Akitsuki & Decety, 2009)—have also been shown to increase somatosensory-specific manifestations of empathic functioning.

In fact, most of the more specific clinical variables I have discussed—such as our patients' experiences and expressions of relatively more intense pain, our patients' relatively reduced capacities for symbolizing their clinically-relevant experiences, reductions in the perceived sense of agency we might attribute to our patients, as well as our own relatively strong identifications with certain patients—could be viewed as situational factors that, in effect, increase the relative demands upon therapists' affect-regulatory functioning. On this basis alone, therefore, these particular clinical variables might also be expected to predispose therapists to relatively more disregulated or dissociated empathic responses.

Obviously, this list of potential antecedents to clinicians' reduced affective functioning is by no means exhaustive. In other words, it would certainly be possible to conceive of many other such clinical scenarios that could also be expected to facilitate relative disregulation or dissociation of therapists' normal affective and, therefore, empathic functioning within the psychotherapy situation. For example, I would suggest that clinical circumstances involving particular time-constraints on one's work and/or

relatively immediate signs of potential danger—for example, a patient’s elevated risk of self-harm—could potentially also exacerbate the potential for therapists’ disregulated empathic responses.

More important than generating a more comprehensive list of the many clinical factors that could potentially lead to psychotherapists’ relatively disregulated affective functioning in relation to their patients, I would simply reemphasize what I see as a crucial point: the extent to which psychotherapists’ empathic functioning may become disregulated or dissociated—including those instances in which therapists may experience somatosensory-specific aspects of their normal empathic response as idiosyncratic by virtue of their having become relatively split-off or dissociated—should necessarily be viewed as related to the particular situational demands on psychotherapists’ affect-regulatory functioning.

To the extent that a relatively more comprehensive clinical formulation can now be generated—that is, which takes into account each of the experimental variables that has been demonstrated to potentiate somatosensory contagion—I would propose the following: the potential for psychotherapy-related somatosensory transmissions increases as a function of the relative disregulation of therapists’ normal empathic functioning. Therefore, particular clinical variables that tend to facilitate *either* increased activation of bottom-up empathic processes associated with somatosensory contagion (e.g., increased perceptions of patients’ relative pain-intensity, increased relevance of evocative nonverbal cues indicative of painful experience) *or* reductions in top-down empathic processes associated with self-other differentiation and self-regulation (e.g., therapists’ tendency to assume first-person cognitive perspectives with regard to their patients, therapists’ relatively strong identifications with their patients,

situational demands on therapists' affect-regulatory functioning) should also be expected to have an incremental and cumulative impact in predisposing a particular psychotherapy dyad to instances of somatosensory transmission phenomena.

Once again, I want to emphasize the many ways in which this general formulation corresponds with the particular clinical circumstances surrounding psychological trauma—or, more specifically, the common phenomenological experience of therapists working with, and, therefore, attempting to empathize with, patients who exhibit signs of disregulated or dissociated affective functioning. In the next chapter, I will provide detailed descriptions of my own clinical work with a severely traumatized man. My work on that case—which included multiple instances of somatosensory transmission—involved, in one way or another, nearly every one of the aforementioned clinical circumstances that I have highlighted here as having the potential to predispose particular psychotherapy dyads to instances of somatosensory transmissions.

Research Question #3 – How are somatosensory transmissions best conceptualized and worked with *clinically*?

For somatosensory transmission phenomena to be effectively navigated in a clinical sense they must first be *noticed*—that is, recognized by psychotherapists as clinically-relevant aspects of the psychotherapy process. For this reason, my emphasis to this point has been to “demystify” these phenomena by raising clinicians’ awareness and understanding of what I have argued constitutes a coherent but insufficiently examined category of clinical phenomena. To that end, I analyzed existing evidence of psychotherapy-related somatosensory transmissions from a range of contemporary psychotherapy literatures. I also reviewed primarily neuroscience-based empirical

research literature to identify relevant neurophysiological mechanisms that could bolster clinicians' comprehension of somatosensory transmissions. Finally, I proposed a conceptual model to demonstrate *how* and *under what conditions* somatosensory transmission phenomena could be expected to become relevant aspects of the psychotherapy process.

Because this project focuses on a relatively uncommon category of clinical phenomena—albeit one less obscure and “mystical” than some have suggested—it is also necessary to go beyond simply raising awareness and proposing a new conceptual framework. For this project to be of greater practical relevance to clinicians, and thereby foster increased clinical interest in and attention to somatosensory transmissions, it also needs to be aligned with broader developments within our discipline.

Whereas the previous discussion has focused narrowly on atypical sensory-level manifestations of psychotherapists' disregulated empathic responses under relatively extreme clinical circumstances, this section will approach somatosensory transmissions from the broader context of “two-person” intersubjective processes and potentials relevant to psychotherapy. In doing so, I will emphasize what I see as distinct clinical advantages associated with conceptualizing somatosensory transmissions from an intersubjectivist metapsychological framework, the most important such advantage being that an intersubjectivist clinical frame renders these phenomena more comprehensible and, therefore, more *noticeable*.

*“One-person” vs. “Two-person” Conceptual Approaches to Somatosensory Transmissions*

In some ways a discussion of whether psychotherapy-related somatosensory transmissions should necessarily be formulated from a “two-person” metapsychological perspective might seem like a non-issue. After all, this category of clinical phenomena, by definition, involves *therapists’* subjectively-perceived sensory-level experiences. Therefore, in contrast to assessing, for example, the clinical significance of a patient’s dream material, it becomes an inherently more difficult—if not, impossible—proposition to construe somatosensory transmission phenomena in ways that are exclusively focused upon the patient<sup>31</sup>. It was on this basis that I originally suggested that somatosensory transmissions constituted a quintessentially “two-person” clinical construct—which, if better understood, might serve to heighten clinicians’ appreciation for the range of non-conscious, nonverbal, interpersonal processes relevant to psychotherapy.

As I described in more detail in my review of the literature in Chapter 2, I was surprised by the limited ways that clinician-theorists often dealt with what I viewed as the obvious, significant “two-person” implications of this clinical category. It was not that existing references to psychotherapy-related somatosensory transmissions had

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<sup>31</sup> In other words, while I would still disagree in general with the notion of analyzing a patient’s dream material from a purely “one-person,” patient-focused perspective—which, to my way of thinking, would necessarily preclude adequate consideration of relevant interpersonal variables and their influences on, for example, *which* aspects of a patient’s dream were recalled in therapy or *how* these details might have been elaborated differently within alternative relational contexts—I am, at least, able to *conceive of* arguments for analyzing patients’ dream material from a more “one-person” perspective—that is, which focuses relatively exclusively upon the dream’s potential to primarily symbolize aspects of the patient’s past and present subjective experiences. However, it would seem to me to be another matter entirely to conceptualize psychotherapy-related somatosensory transmissions from such a “one-person” perspective—which would, essentially, be like analyzing a *therapist’s* dream almost exclusively in terms of a particular *patient*, who just so happened to find his or her way into the therapist’s dream (i.e., as opposed to *also* considering the potential contributions of the therapist’s own subjective experiences in terms of generating such a dream in the first place!).

ignored the potential contributions of therapists to these clinical episodes. In fact, there were very few references that discussed somatosensory transmissions in *purely* “one-person” patient-focused terms<sup>32</sup>. When it came to considering the clinical significance of these phenomena, however, there was a subtle-but-pervasive tendency to inadequately examine therapists’ own potential contributions. From my perspective, this pattern in the existing literature constituted a series of missed opportunities to both more fully elaborate the clinical significance of particular instances of somatosensory transmission and more coherently promote the general relevance of these clinical phenomena.

There were primarily two ways that existing clinical approaches tended to preclude more sufficient consideration of therapists’ contributions to psychotherapy-related somatosensory transmissions, essentially corresponding to classical and object relational conceptual perspectives within psychoanalysis.

Classical clinician-theorists acknowledged, to some extent, the importance of attending to *subjective* sources of information regarding their patients, especially in terms of their own primary-process-level associations—which included analysts’ idiosyncratic physical sensations in several cases (Jacobs, 1973; Thomson, 1980; Silverman, 1991; Agger, 1993). However, this group of clinician-theorists ultimately privileged the more “one-person” principles of *objectivity* and technical *neutrality*. For example, when writing about somatosensory transmission phenomena, classical

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<sup>32</sup> Arguably, the most “one-person” depictions of somatosensory transmissions that I found in the psychotherapy literature were relatively isolated cases in which clinician-theorists’ descriptions of their case material was, perhaps unintentionally, “too glib and facile” (Samuels, 2000; p. 412)—leaving the impression that the patient had somehow been *solely* responsible for the somatosensory transmission that manifested in the therapist’s subjective bodily experience. Stone (2006) provided such an example, I argued, when he rather-too-concisely concluded his characterization of a “terrible pain in the right-hand side of my neck” (p. 116) that corresponded to his work with a particular female patient who always expressed her anger in a “calm and controlled” (p. 116) manner—by stating: “[s]he then told me she had suffered bad neck pains for many years, and it felt as if *she was now projecting them into me*” (p. 116; emphasis added).

clinician-theorists often emphasized their “objective” positions vis-à-vis the treatment process as a means of more readily distinguishing—and, therefore, *neutralizing*—their own potentially “contaminating” influences on patients and the treatment process. This overarching emphasis on analysts’ objectivity and technical neutrality—especially when focused on hyper-monitoring or eliminating analysts’ more natural responsiveness to and with their patients—limited the fuller consideration and more productive use of therapists’ own subjective associations to instances of somatosensory transmission.

On the other hand, object relationalists, while less concerned with eliminating the role of themselves and their influences upon the psychotherapy process, privileged “mother-infant” and attachment-based metaphors for the psychotherapy relationship. As such, object relational clinician-theorists tended to view the broader range of therapists’ empathic responsiveness to their patients—including spontaneous physical sensations and physiological symptoms—as manifestations of relatively expectable “communicative” processes that characterize mothers’ interactions with their infants (DaSilva, 1990; Welles & Wrye, 1991; Sands, 1997a; 1997b; Orbach, 2004; 2006). It was the pervasiveness of these “mother-infant” metaphors for the treatment process that, I believe, most constrained this group of clinician-theorists from further elaborating therapists’ deeper involvement in and potential contributions to instances of somatosensory transmissions. In other words, although they did not conceive analysts’ position vis-à-vis their patients so much as objective and neutral arbiters of meaning, they nonetheless—by conceptualizing themselves as idealized “maternal objects” for their patients—tended to narrowly construe somatosensory transmissions primarily in

terms of their “maternal” responsiveness to their patients’ “regressed” or “primitive” unmet needs.

It was in the context of a general dissatisfaction with the existing psychotherapy literature relevant to somatosensory transmissions that I first became acquainted with Wachtel's (2008) *Relational Theory and the Practice of Psychotherapy*. Wachtel's conceptual descriptions—in particular, his arguments promoting a more “thoroughgoing two-person” framework for the psychotherapy encounter—eventually helped me to more specifically articulate my dissatisfaction.

Wachtel (2008) described a “fully two-person psychology” (p. 11) as one in which:

“the affective exchange between *actual people* takes center stage, and one comes to see and understand the profound ways in which the moods, fantasies, desires, perceptions, and expectations of each intersect with, create, transform, and recreate the moods, fantasies, desires, perceptions, and expectations of the other” (p. 11; italics from original).

Although he had not explicitly used the word “sensations” in describing the various subjective and intersubjective dimensions of experience in which patients and therapists are constantly influencing each other, Wachtel’s ideas were consistent with my own thinking about somatosensory transmissions. That is, from my perspective, the particular clinical relevance of therapists’ idiosyncratic physical sensations and physiological symptoms associated with their clinical work could only be adequately considered in the context of patients’ *and* therapists’ “moods, fantasies, desires, perceptions, and expectations” (p. 11).

Wachtel (2008) also helped orient me to a broader spectrum of intersubjectivist clinician-theorists whose concepts, including “affective resonance” (Basch, 1983), “mutual regulation” (Beebe & Lachmann, 1998), and “implicit relational knowing” (Stern et al, 1998), also resonated for me with regard to my interests in expanding clinicians’ awareness and understanding of somatosensory transmissions. I reasoned that this narrow investigation of psychotherapy-related somatosensory transmissions—in particular, by examining potential neurophysiological explanations for these phenomena—could also contribute to broader discussions of, for example, the neurophysiological basis for various intersubjective clinical concepts and further reinforce therapists’ more general awareness of the sometimes-dramatic implications of intersubjectivity in our clinical work.

In contrast to classical privileging of analysts’ objectivity and technical neutrality, intersubjectivists emphasize “the quintessential subjective nature of the enterprise...and the centrality of the analyst’s ongoing impact on the process (not just in terms of technique but *in his or her entire personhood*” (Bass, 2000; p. 880; emphasis added). From an intersubjectivist perspective, therefore, clinicians are encouraged to attend to their own subjective affective and empathic involvement with patients—including subjectively-perceived, idiosyncratic, physical sensations that might relate to the clinical process. Furthermore, an intersubjective metapsychology acknowledges the relative complexity of psychotherapists’ interactions with and influences upon their patients at any given moment in a treatment. Therefore, an intersubjective clinical approach would be more likely to accept that many such levels of influence cannot easily be rendered in consciousness. From this perspective, somatosensory transmissions represent a relatively dramatic subcategory of pervasive nonverbal, non-

conscious processes inherent to the psychotherapy situation—which may or may not rise to the level of patients’ and therapists’ conscious awareness.

In contrast to the limited range of relational metaphors that define object relational perspectives within psychoanalysis, intersubjectivists emphasize:

“an abiding sense of the complementarity between transference and countertransference...[and] a readiness to examine, in theory and in practice, the fullest possible implications of the analytic relationship construed as one comprised of the two irreducible subjectivities of its participants, always shaping and reshaping the kind of experience and relationship that any given analysis will be” (Bass, 2000; p. 880)

From this perspective, therapists are, therefore, not limited to facilitating relatively contrived “maternal” relationships, or confined to framing interpretations within a narrow set of interpersonal contexts. An intersubjectivist perspective encourages therapists to utilize their own natural affectivities and empathic functioning in the context of *real* relationships with patients—thereby also permitting greater access by clinicians to their own subjective experiences of idiosyncratic, disregulated affective or empathic functioning in relation to patients. Particularly in the case of somatosensory transmissions, an intersubjectivist position permits a broader range of relational metaphors for contextualizing patients’ historical experiences of disregulated affective functioning—especially those that may have taken place at other points in the patient’s history besides infancy.

There are several specific clinical advantages to conceptualizing and working with somatosensory transmissions from an intersubjectivist point-of-view. First, I would suggest that the potential for clinically-relevant insights is increased. This is

largely a function of therapists' freer, more extensive use of their own subjectivities as analytic tools. Knoblauch (2000) illustrated this point nicely when he described the following turning point in his clinical work with Bob, a 32-year-old man whose childhood had included severe physical abuse by, among others, his father.

"Bob began to speak rapidly and loudly. He was yelling, cursing, and threatening to physically hurt his boss or others. He stood up and began to pace around the room. He threw his arms out in a gesture of physical release. Startled, I maintained my seat. *I could feel my muscles tighten throughout my body.* I could feel myself preparing to protect myself, maybe restrain or immobilize him, maybe run out of the room. Bob continued to gesticulate, but now I could sense that he was not approaching me, at least not at this moment. I speculated that he was communicating to me, through reenactment, his fear of being punished. He seemed to be threatening me like his father threatened him. At the same time, he appeared to be like a helpless, scared infant, thrashing his arms in fear and feeling out of control" (p. 65; emphasis added).

This particular clinical moment, which had the impact of engaging the therapist's own heightened *physiological* responses, eventually allowed Knoblauch (2000) greater access to as-yet-unarticulated aspects of his patient's subjective experience. In other words, Knoblauch's immediate, idiosyncratic, physiological sensations allowed him to better understand his patient's subjective experience—in particular, *physiologically*-driven aspects of this patient's dissociated affective functioning in relation to other men. By recognizing the reenactment-like qualities of this clinical moment and, more importantly, by sensing his patient's fear of being punished for the first time via this more vulnerable affective state, initially in his own bodily experience, Knoblauch was able to facilitate his patient's gradual integration of these formerly overwhelming affective states.

Even in the absence of such immediate clinical insights, however, there may also be *process-level* benefits of patients and therapists interacting in more genuine ways as “actual people” (Wachtel, 2008; p. 11). For example, this promotes an increasingly intimate treatment process that may facilitate eventual insights, but can often be inherently therapeutic in and of itself—sometimes, if only by perpetuating an ongoing process of *relating* in the context of the patient’s unprocessed and as-yet-inarticulable experience (see also, Stern et al, 1998).

Consider that prior to the aforementioned turning point, there was a phase in Bob’s treatment that Knoblauch (2000) characterized as “frustrating” for both patient and therapist. It was during this phase that Knoblauch eventually became aware of a particularly important aspect of his patient’s still-inaccessible subjective experience:

“I could see how the frustration of not knowing (i.e., the kind of relatedness he wanted from nephew, from boss, from me...rooted in severely conflicted relatedness with father, that included dissociated affective states of fear and rage), and therefore not being able to say, would result in either outbursts or lack of communication” (p. 65).

In other words, Knoblauch highlighted the relative disorganization and inaccessibility (as a result of dissociative processes) of Bob’s longings for relatedness in the context of overwhelmingly painful and conflicted associations to past abusive relationships. Although Knoblauch did not further elaborate the clinical process that led to this eventual recognition of Bob’s frustration at “not knowing,” it seems likely that this process may have involved repeated experiences of *his own* (i.e., the therapist’s) frustration. Knoblauch implied as much, for example, when describing his own

frustrations during this same phase of treatment at recognizing that his more standard interpretive efforts did not seem to be working with Bob.

For the purpose of illustrating what I view as the more *process-level* advantages of approaching somatosensory transmission phenomena from an intersubjectivist frame, I want to speculate that Knoblauch's (2000) patient may have been "invested" in his therapist's feelings of frustration. In other words, in the context of what were extremely painful associations to his past experience with an abusive father, which were being repeatedly aroused through his relationships to boss and therapist, there may have been something inherently stabilizing for Bob in witnessing *his therapist's* frustration—in particular, his therapist's *bodily* experiences and *physical* expressions of frustration that mirrored his own affective experience. By virtue of such a shared affective experience, Bob was, at least, no longer alone with such conflicted, disregulating affective experiences and, furthermore, he was able to recognize and witness these disorganizing affective states being lived through in the body of his therapist.

Of course, Knoblauch's (2000) own frustrations in working with Bob were not the type of dramatic sensory-level experiences that I have identified as somatosensory transmissions. But, I would suggest that this clinical example does illustrate what the *process-level* advantages of approaching somatosensory transmissions from an intersubjectivist orientation might be. For certain patients who are experiencing or who have experienced overwhelming and disregulating experiences of physical or emotional pain, there may be something inherently stabilizing—and, therefore, facilitative of an ongoing treatment process—in being able to witness aspects of their own disregulated affective responses in the bodies and bodily expressions of their therapists. In these

situations, somatosensory transmissions may, in fact, represent a rudimentary means of symbolizing overwhelming experiences of pain, and, perhaps more importantly, can serve to perpetuate an ongoing relational “exchange” in relation to patients’ relatively inaccessible traumatic experiences.

One final advantage to conceptualizing somatosensory transmissions from an intersubjectivist point-of-view is that these phenomena are simply more comprehensible and, therefore, more recognizable to clinicians within this conceptual framework. When therapists are encouraged to more fully utilize their natural affectivity and empathy as clinical tools, I would suggest that therapists are generally more likely to notice idiosyncratic, sensory-level manifestations of their own disregulated affective and empathic functioning in relation to their patients, and are less likely to perceive these clinically-relevant experiences as disorienting or “mystical.” In other words, it is at least partially, the remnants of “one-person” metapsychological frameworks in psychotherapy that perpetuate impressions of somatosensory transmissions as “incredible” or conceptually untenable.

In closing, I want to refer back to one of the social neuroscience investigations of empathic pain perception that I reviewed in Chapter 3. Recall that Decety et al. (2010) discovered that physicians, as compared to non-physicians, “down-regulated” (p. 1682) their natural empathic responsiveness to patients’ experiences of physical pain. This down-regulation was observed at both the level of subjective awareness (i.e., reduced subjective pain ratings) and at neurophysiological levels (i.e., comparatively reduced neural activity in physicians’ brain regions associated with firsthand pain processing).

One thing that I would suggest distinguishes psychotherapists from physicians is the extent to which therapists utilize their own natural affective and empathic

potentials in engaging their patients. A concern that I have had with existing clinical conceptualizations of somatosensory transmission phenomena is that many of these approaches seemed to constitute another type of *down-regulation*—that is, a diminution of clinicians' fuller, more flexible use of their own affective and empathic potentials in relation to their clinical work.

Obviously, individual psychotherapists, like individual physicians, must strike an appropriate balance between being responsive to their patients and being consumed by them. However, this investigation has reaffirmed for me that psychotherapists, indeed, have relatively unique access to very powerful clinical tools that are rooted in our own natural empathic processes and potentials. Therefore, I am advocating a “thoroughgoing two-person” (Wachtel, 2008) intersubjectivist clinical approach primarily because I believe that this orientation permits clinicians the greatest depth and flexibility in striking this necessary balance in a way that remains open to what may, in fact, be most therapeutic about psychotherapy—that is, our ability to convey to our patients, often without words, that they are not alone with their pain, that their pain is being *known* by another person and, therefore, *can* be known, and, finally, that the gradual process of representing and integrating one's experiences of pain can be undertaken.

## CHAPTER FIVE

Working at the Boundaries of Intersubjectivity: An Illustration of  
Somatosensory Transmission Phenomena in Clinical Practice

“Indeed, the most intense feeling we know of, intense to the point of blotting out all other experiences, namely, the experience of great bodily pain, is at the same time, the most private and least communicable of all. Not only is it perhaps the only experience which we are unable to transform into a shape fit for public appearance, it actually deprives us of our feeling for reality to such an extent that we can forget it more quickly and easily than anything else. There seems to be no bridge from the most radical subjectivity, in which I am no longer ‘recognizable,’ to the outer world of life. Pain, in other words, truly a borderline experience between life as ‘being among men’ (*inter homines esse*) and death, is so subjective and removed from the world of things and men that it cannot assume an appearance at all” (Arendt, 1958; *The Human Condition*; pp. 50-51).

The following case presentation is intended to enhance the more conceptual arguments I have presented in earlier chapters of this dissertation. My own clinical involvement with this particular case and, in fact, my descriptions of the treatment process were completed long before my review of the social neuroscience literature relevant to empathic functioning and empathic pain perception—and, therefore, prior to my development of a neurophysiologically-grounded conceptualization of somatosensory transmissions. However, in reviewing my clinical work on this case, I have been especially struck by the remarkable overlap between, on the one hand, the particular interpersonal variables that—based on neuroscience research on empathic pain perception—would, in fact, be expected to facilitate somatosensory contagion, and, on the other hand, the specific clinical circumstances surrounding this case, which, in

fact, involved two rather dramatic instances of somatosensory transmission at the very beginning of the treatment.

Briefly, psychotherapy with Mr. M. involved working with a patient for whom relatively intense past and present experiences of physical pain were extremely clinically relevant. Furthermore, due to language and cultural barriers that existed between us, I had to rely inordinately upon nonverbal indications of my patient's experience. Especially at first, I found myself using my own nonverbal modes of expression as the basis for any sense of connection. In addition to his chronic physical pain, Mr. M. displayed extreme manifestations of shame. Mr. M.'s predicament was so extreme—so tragic—that I, at times, thought of him as an infant, completely helpless and lacking personal agency. At other times, I found myself especially invested in our similarities—often surprising myself (and my supervisor), upon reflection in supervision, at the clear evidence of my strong identifications with him. Lastly, there were many additional extenuating circumstances of this case that placed increased demands upon both my patient's and my own affective functioning—such as, for example, this patient's level of suicidality, extreme bureaucratic obstacles to appropriate care, and my own sense of shame and inadequacy as a relatively new therapist to both the profession of psychotherapy and to this particular hospital setting. I have no doubt that these clinical variables contributed to what might best be described as my disregulated empathic functioning in relation to Mr. M.

Despite this daunting set of clinical circumstances, I would argue that this case also portrays the relative therapeutic benefits of employing a “thoroughgoing two-person” (Wachtel, 2008) approach to both a specific subcategory of intersubjective clinical phenomena—that is, dramatic manifestations of clinically-relevant physical

sensations occurring in the subjective bodily experience of the therapist—as well as to the treatment process more generally.

Evidence of my relatively disregulated—and, even, dissociated—empathic functioning in relation to Mr. M. took several idiosyncratic forms throughout the course of this treatment. Initially, I experienced subtle-but-unmistakable pain sensations that seemed to correspond with our first two meetings. Later, as I struggled to find other ways to represent the intensity of this patient’s experience—that is, other than through these relatively isolated physical sensations—I found myself uncharacteristically over-identified with Mr. M. Later still, at about the point in this treatment when Mr. M. was beginning to reveal details regarding his earlier traumatic history, my disregulated empathic functioning took the form of an uncanny “countertransference dream,” which was clearly linked to my perception of Mr. M.’s traumatic history involving politically-motivated torture.

In retrospect, I believe that each of these manifestations of my empathy for Mr. M.—albeit, idiosyncratic and sometimes disorienting—were, indeed, essential to facilitating an ongoing relational and, ultimately, therapeutic process with a patient who, for many reasons, might not otherwise have remained in treatment. Furthermore, I would suggest that there is also significant evidence that this psychotherapy process—with its considerable instantiations of disregulated and dissociated affective functioning on the part of both patient and therapist—did gradually lead to Mr. M.’s improved affective functioning, as well as my own more regulated and differentiated empathic functioning in relation to Mr. M.

### Mr. M. – A Case of Severe Chronic Neuropathic Pain

Mr. M. was actually my first ongoing psychotherapy patient as a psychology extern at Bellevue Hospital's Pain Management Center. He was in his mid-thirties, a recent immigrant from West Africa who spoke almost no English. Our meetings were mediated by a phone that had two handsets, connecting each of us to an off-site French-speaking interpreter. At our first meeting, Mr. M. reported that he was experiencing "burning" pain in his right hand and forearm, which, at the time, were concealed by a protective cast. He rated his pain an "8 out of 10," grimacing as he struggled to indicate that his pain also extended up his right arm to his shoulder, neck, and upper back areas.

He explained that his pain symptoms began almost a year before our meeting—the result of a workplace accident in which his right hand and forearm had been scalded by hot cooking oil at the restaurant where he worked as a part-time dishwasher.

Although he mostly refused throughout the treatment to discuss his past, including his family in Africa, Mr. M. did occasionally share some details with me: that he'd come to the U.S. intent on sending his earnings back to his family; that he was the oldest of 10 children and that it was, therefore, his "responsibility" to care for his mother and younger siblings, who he described as "barely surviving" the ongoing civil war in his country. Much later in the treatment, I would learn that Mr. M.'s father had been killed in this civil war and that Mr. M. himself had served as the bodyguard to a local politician in his country. It was in this capacity that he endured politically-motivated torture.

During the year following his more recent burn-related injuries, Mr. M. had been unable to work, unable to earn any income, much less send money back to his family. He

reported that he had lost contact with his mother and siblings because he could not face having to explain the “shameful” circumstances in which he found himself. Here he was, seated in what was, no doubt, yet another hospital room talking to yet another stranger who was encouraging him to recount painful experiences—all the while, acutely aware that he was unable to provide for his family, nor even to care for himself, and in the relatively helpless position of having to depend almost completely on others. In addition to his severe chronic pain condition, Mr. M. was clearly carrying around a compounding and debilitating sense of shame.

When I met him, Mr. M. had no home; he was sleeping on subways and reported going days without food. Despite retaining a workers-compensation attorney and attending to some meager medical follow-up for his burn-related injuries, Mr. M. had apparently spent much of the year since being injured wandering the streets of a foreign city in which he neither spoke the native language nor sufficiently understood its culture or social services. He had found his way to the clinic where I was beginning an externship nearly a year after his accident and only after reaching such a state of desperation as to check himself into the emergency room in more pain than he could bear and contemplating suicide.

During his first months of treatment, I helped to connect Mr. M. with a homeless shelter and dependable sources of food. At this point, a more definitive diagnosis of his psychological condition could be made. With a shelter to sleep in, Mr. M. described severe sleep disturbances including persistent nightmares involving the scene of his burning injury (i.e., the restaurant) from which he reportedly awoke screaming “every night.” With food now more available to him, Mr. M. reported almost no appetite and, furthermore, that he had experienced significant weight loss over the past year. He also

mentioned an irrational fear of flames—in particular, the ones he'd seen people using in front of the hospital to light their cigarettes. Finally, Mr. M. also endorsed passive suicidal ideation. Diagnosed with a severe, chronic neuropathic pain condition secondary to his burn injuries, Mr. M. was also severely depressed and suffering from PTSD.

In contrast to the detailed histories that are common to psychotherapy case presentations, I have now, unfortunately, reported just about everything I can about this particular patient's background, family history, and life circumstances prior to his arrival at the pain clinic. There are a few important reasons for this.

First of all, as I mentioned, Mr. M. all but refused to talk about his past, even as the manner in which he refused would change dramatically over the course of the treatment—from pronounced autonomic responses, such as his eyes welling up in fear or rage in response to my earlier inquiries, to his almost-demure agreement regarding the importance of talking about “those things,” while calmly stating that he was “still not ready” much later in the treatment. There were a few very noteworthy exceptions—such as when he revealed that he had endured physical torture.

Another thing that impeded my uncovering a more detailed clinical history was the near-constant legal and insurance-related “roadblocks” that I encountered in working on this case. This patient was, essentially, being put through the ringer—from lawyers who clearly resented being sent back-and-forth to court over every minute change to his treatment plan which had, once again, been immediately denied by this patient's obstructive insurance provider, to the regular demands from his insurer for additional medical opinions contesting our pain management team's diagnoses and treatment plans. In other words, barely catching-up with the latest round of procedural

obstacles to Mr. M.'s care left precious little time for dealing with anything other than the most practical matters.

Lastly, and probably most obviously, what kept Mr. M. and me from delving more deeply into his clinically-relevant personal history were the significant cultural, language, and technical communication-related issues inherent to this case. Just hearing my own suddenly 'disembodied' words being delivered by a stranger's voice over the phone in another language, not knowing whether these words (of mine) were being accurately translated, catching myself using my own body to convey what I feared might be lost in translation, patiently waiting to see the impact of my words register, first, in Mr. M.'s facial expressions or bodily posture, anticipating the meanings of his words from tone and inflection while I awaited their translation—it was a bit like doing psychotherapy under water!

Simple issues could take inordinate amounts of time, and complex issues like emotional elaboration seemed almost impossible. On a more positive note, the 'slow-motion' qualities of this treatment did enable me to keep relatively verbatim notes for my supervision sessions, without feeling that I was unduly sacrificing my nonverbal connection to Mr. M. In retrospect, I have also wondered, especially given Mr. M.'s extreme vulnerabilities and resistance to discussing so many areas of his life, whether these many barriers, as frustrating as these were to me, might not have actually made it more tolerable for Mr. M. to remain in treatment.

I will now describe the instances of somatosensory transmission that corresponded to my first two sessions with Mr. M. Following each of our first two meetings, which took place about a month apart due to unfortunate scheduling conflicts that could not be avoided, I experienced the same unusual sensation: the skin on the

outside of my right arm became sensitive within several hours of my sessions with Mr. M. It reminded me of one of those irregular sunburns you can get from too comfortably resting your arm out the passenger-side window on a long car trip. My best guess is that these sensations might never have registered in my conscious awareness were it not for having this very same thought on two separate occasions—have I been on a long car trip?—attempting to make sense of this odd sensitivity.

Once I made the connection between my physical sensations and my same-day meetings with one particular patient who happened to be suffering from a *burn* injury to *his* right arm, I was frankly a bit spooked. I tried to make as much sense of it as I could. In particular, I wondered what was so different about this case from others I had worked on? I thought about how helpless and acutely depressed this man was, and how particularly tragic were his circumstances. This was all well before I knew anything about his experience of physical torture. I also talked about my strange experience to colleagues and supervisors—most of whom were not especially surprised and, in some cases, even shared similar experiences of their own. Others asked more pointed questions about this patient’s trauma history. In other words, the many reactions I got from colleagues that I trusted seemed to imply that there must be something “buried” in this patient’s history to explain such a strong and visceral “counter-transference” response.

I also focused a lot on myself as a potential variable; after all, it was *my* body that was behaving strangely. I thought about all that Mr. M. and I had in common: the uncanny discovery, for example, that I had made while perusing his chart just before our first session together; it turned out that not only were Mr. M. and I the same age, but we were born less than a week apart. I remember wondering, as I nervously awaited

meeting my first psychotherapy patient in a hospital setting, if I had ever met anyone born the same week as me, let alone on the other side of the world.

But, there were also other similarities. Mr. M. wasn't the only one feeling overwhelmed. He was assigned a therapist who also happened to be struggling to acculturate himself to a new language and customs of an unfamiliar workplace. In retrospect, there were also many aspects of this patient's presentation that resonated for me personally: his stoicism, for example, as evidenced by the way he used the pain index that began each of our sessions—never offering a rating higher than an “8 out of 10” despite appearing to me to be in significantly more physical pain than other patients who routinely offered “fifteens!” Furthermore, as a ‘parentified’ oldest child, I related with what I perceived to be Mr. M.'s clear preference for being in the “responsible,” caretaking role—in relation to his family members, but also somewhat reflexively in relation others.

Maybe I was *over-identified* with Mr. M., I thought at several points. Maybe I had lost perspective on our individualities—and had, somehow, lost touch with the *physical* boundaries between our individual bodies? Perhaps this was what was meant by a “psychotic counter-transference,” I worried. Determined, however, not to completely lose my mind in only my third-year of graduate school, I decided to bring these experiences into my own therapy and, in fact, stumbled upon some additional useful associations—in particular, my own feelings of guilt and shame that I had been unaware of following each of my first two sessions with Mr. M.

In my first session with Mr. M., I did not realize—until he was gone, back out onto the streets and subways—that *I* was, in fact, the person responsible for getting him connected to the social work department who would, in turn, provide Mr. M. with

information about homeless shelters and soup kitchens. After realizing my error, I actually ran downstairs, out of the hospital, and around the block looking for him—to no avail.

Unfortunately, this scene was repeated to some degree at Mr. M.'s second session. I had misunderstood the psychiatrist's directions to have Mr. M. wait for her in the lobby so that she could provide him with 'samples' of an anti-depressant medication, which his insurance provider had stubbornly refused to approve payment for. So, essentially, at *both* of our first two meetings, I had managed to send what I perceived to be the most helpless of patients back out into the world lacking critical resources for his survival.

Still, I marveled at my body's apparent ability to produce a *physical* sensation seemingly symbolizing my patient and *his* experience of pain, whether out of a sense of over-identification, or guilt, or something else entirely.

Before beginning my externship at the pain clinic, I had received a stack of references related to working with chronic and acute pain patients—which, of course, I had skimmed and wished I had had more time to read thoroughly. However, there was one article, in particular, that I remember reading carefully. It was Anderson's (1998) chapter detailing a long-term psychoanalytic psychotherapy with a woman suffering from severe musculoskeletal back pain associated with tension myositis syndrome (TMS).

I had been told, in fact, that Dr. Fran Anderson might eventually serve as an "outside supervisor" on my clinical work at the pain center and, so, I naturally wanted to know a bit more about her orientation. Reading Anderson's (1998) chapter for the first time, however, spoke immediately to the strange physical sensations I had

experienced with Mr. M. In fact, there was one sentence that stood out—Anderson’s statement about her managing *not* to become physically ill in relation to her work with this patient. I am somewhat embarrassed to say that, to the relative exclusion of just about everything else Anderson discussed in that chapter, I found myself obsessed with this revelation and its implications—were it not for her active engagement with colleagues over “painful aspects” (p. 300) of her work on this case, Anderson had suggested that she, herself, might have become physically ill.

As it turned out, I was not able to begin my supervision meetings with Dr. Anderson for several months. Therefore, in relation to Mr. M., my instincts took over; I had no choice but to take matters into my own hands. During those first few months of working with Mr. M., I most remember simply feeling relieved when Mr. M. would somehow make it back for his scheduled appointments in one piece. In retrospect, I am now able to describe what I was then only able to perceive—Mr. M.’s profound sense of not just learned-helplessness, but a deadness of expression that I had never encountered before in a patient. I know now that this was quite frightening to me, and, I believe, my somatic reactions, in some ways, represented a sounding of the alarms.

More-than-figuratively, I felt as if I had been “burned” already by my work on this case, and I certainly did not want to be burned again. I became rather hypomaniacally determined to take care of this patient—providing additional pamphlets for homeless shelters, soup kitchens, making sure he had a designated place to go for each of his meals, ghost-writing (for doctors) many letters to his lawyers and insurance company providing detailed rationales for each of his medications and various treatment interventions. I also attempted to provide Mr. M. with “psychoeducation”—intended to help him better understand the interacting influences of his physical and

emotional pain, as well as the potential benefits of psychotherapy. I introduced him to diaphragmatic-breathing exercises in an attempt to empower him to modulate his perception of pain. Looking back, I think I had reasoned to myself on some level that by simply serving as Mr. M.'s psychotherapist, social worker, case manager, Medicaid consultant, legal advisor, medical correspondent and primary liaison to all of his various physicians, lawyers, and insurance company representatives, I could singlehandedly ensure this patient's survival—and, more importantly, I would never have to inhabit that helpless, shameful place where I could seemingly do nothing but “hold” this patient's pain in my own body.

I should, of course, be careful not to overly diminish the importance of what I am describing as the “hypo-manic” phase of my work with Mr. M. After all, by the time I attended my first supervision session with Dr. Anderson, Mr. M. was spending his nights in a homeless shelter, albeit still sleeping upright in a chair; he was eating, and even receiving his pain medications as prescribed. While still fighting his insurance company over their willingness to reimburse the hospital for his psychiatric medications, I had been able to arrange for him to get a seemingly endless supply of ‘samples’ of both anti-depressant and sleep medications. I even managed to enroll Mr. M. in a clinical trial, whereby he was able to get a much-needed MRI of his neck and back—which had up until that point been refused by his insurance provider.

Certainly, there was growing stability in Mr. M.'s life, and I thought this might form the foundations for what I saw as the ‘deeper’ work of psychotherapy. But, as it turned out, it was not so easy *for me* to switch gears.

During our first supervision session, I shared the details of my mysterious somatic sensations with Dr. Anderson. She seemed surprisingly nonplussed and

primarily encouraged me to continue sharing my experiences of working with this patient. So, I presented some more recent material involving frustrations I was feeling with Mr. M.— who, in our previous session, reported that he had been “arrested”. However, as I struggled to understand the particular details of this incident, it became clear to me that Mr. M. had actually only been briefly detained and released by transit police officers who worked in the subway system; Mr. M. was apparently accused by the officers of asking someone exiting the subway to ‘swipe’ him in for free. Given what I perceived as the relatively minor nature of this infraction—accompanied by my patient’s readily apparent and inordinate level of anxiety (i.e., convinced that he had been “arrested” and fearing for what might happen next)—I found myself trying somewhat desperately to ease Mr. M.’s anxiety. I rationalized with him: however confusing and scary this incident may have been, I assured him that it was almost certainly over.

Now, at this point—if things were not already clear enough to my supervisor with regard to what was going on between Mr. M. and myself—I then decided to share some further associations I had had while instructing Mr. M. in a relaxation exercise. Specifically, I acknowledged to Dr. Anderson that while seated there together, observing each other’s undulating diaphragms within the relative sanctuary of our private hospital room, I had had the unusual fantasy that I was “cradling” Mr. M. In another early supervision session, I told Dr. Anderson that I was relatively certain that Mr. M. must be gay, like myself. Much later in this treatment process, I would come to realize that these episodes—involving relatively idiosyncratic associations, fantasies, and identifications with this patient—were, in fact, related in important ways to my strange physical sensations in that they very likely reflected my best initial efforts to contain

and symbolize Mr. M.'s as-yet-unprocessed subjective experience of overwhelming pain and shame. As an example of this, I would now suggest that the certainty I felt with regard to Mr. M.'s sexual orientation early on in my work with him had less to do with the reality of his sexual orientation than with the pervasive sense of shame that I felt emanating from him; apparently, the best I could do to formulate what I felt as the intensity of his shame was to project onto him my own much earlier struggle with coming-out.

As was so often the case, Dr. Anderson's advice on that first day of supervision was simple, and yet profound in its impact upon my work with Mr. M. She highlighted, for example, the importance of helping Mr. M. to feel more in control of his life and able to take care of himself. Dr. Anderson suggested relatively simple things such as, allowing others, aside from me, to get more involved in his care, enabling him to broaden his interactions, and, rather than reflexively meeting his needs *as I perceived them to be*, helping him to verbalize his needs to appropriate others in his life. Dr. Anderson also recommended that I ask Mr. M., who was so resistant to talking about his past, to tell me about his country, its culture, and, thereby, help him to feel that he were in the position of authority. Much later in his treatment, as we delved more deeply into Mr. M.'s traumatic history, he and I would agree upon a 'signal'—raising his hand—that he could use to immediately stop my inquiries if they became too painful for him.

Dr. Anderson helped me to gradually recognize how my hyperactivity was really intended to soothe *my own* anxiety. It was in this context that I was, in fact, first able to symbolize the phenomenological experience I had had of my work with this patient reflected in the metaphor of a baby left at my doorstep—helpless and dependent upon me; only I could possibly understand and soothe him. Giving Mr. M. greater control over

his treatment, as Dr. Anderson advised, took some of the pressure off me and allowed me to see and hear things I had, no doubt, been missing. It was like being given permission to just listen and sit-with my patient's experience in a new way, opening up a reflective space that was critical for the work of psychic elaboration.

Conceptually, I was familiar with the idea of psychic elaboration. But, at this more practical level, sitting across from Mr. M., I had never felt so challenged to get myself 'out of the way' and make space for this process to unfold. I remember Dr. Anderson asking me simple questions, which at the time felt like revelations. Did I know, for example, what Mr. M. was so afraid of in relation to the subway police? I had to admit that I had not asked, perhaps, because I had too immediately sensed the danger—that is, the danger of underlying disregulated affective experiences—in that moment. Dr. Anderson helped me to reflect upon my automatic response to this sense of danger that I perceived—asking me, for example: “danger, for whom?”

I gradually learned to listen for affectively-tinged moments and became more comfortable using them as opportunities to open-up space for Mr. M.'s elaboration of his subjective emotional experience. I began to hear things differently—what were either new details or ones I had missed because I had been so focused on other things.

In one session, Mr. M. recounted the content of his nightmare, which he'd done many times before, but this time with an important new detail: someone in his dream, who he did not recognize, was trying to hurt him. I reflected the presence of this new detail back to him and asked him how this had felt to him. He was not able to respond to my question, but did, however, agree with my suggestion that the feeling in his dream might be similar to how he had felt with the police in the subway.

Later in the same session, Mr. M. updated me on the latest series of problems he was encountering with his insurance company, adding: “they treat me like I did this to myself.” For once, I could feel his frustration (as opposed to my own) and justified sense of outrage. Making space for him to elaborate what he had meant, he continued to tell me that he had “never” felt angry before his injury (i.e., burn). He seemed to be taking some pride in this, telling me that—even when his father had been killed in the civil war leaving him as the oldest and, therefore, responsible for his remaining family members—he had “never” felt angry. “But, now,” he went on, “I can’t work and I can’t care for my family.” I remember using the word “tragic” to reflect back to him what I had heard him tell me that day. Almost immediately, he asked me to explain my use of that word—either, because he did not understand its translation or, perhaps, did not want to. I told him that what I had meant by ‘tragic’ was: “something that shouldn’t happen to anyone.”

It occurred to me, in supervision, that this had not been a particularly precise definition. However, by this point, I had realized that it was not so much the precision of my words that seemed to matter, as much as the fact that Mr. M. and I were gradually forging a common language—and, most importantly, this new language was permitting the more dependable sense of shared affective experiences, as well as a felt sense of empathy for each other.

As exciting as it was to witness a patient coming back to life before my eyes, there were already signs of what would be the next important lesson of this treatment. Mr. M. missed his next two sessions. When he returned, weeks later, he reported increased physical pain symptoms and was, again, especially preoccupied by the incident involving his detainment by police officers. In retrospect, I wonder whether his

perseveration on this incident might not have been a clue to his as-yet-undisclosed physical torture. After all, one can only imagine what it must have been like for this Muslim man who spoke no English to be “detained” by police officers in the New York City subway system only a few short years after 9/11—especially if he had already experienced torture based on his religious beliefs.

On that day, however, I simply made space for him to express his feelings. He said: “I don’t understand why this happened to me. I don’t know why what I did was wrong. I’m angry with myself. I don’t know what I did. I’m angry with myself.” In retrospect, I am sure he was attempting to show me the “danger” I had perceived—of getting too close to his underlying experience of rage. With so few people in his life, so dependent as he was on strangers, so few places for these angry feelings to be safely expressed, they would almost necessarily have to be turned on himself (i.e., “I’m angry with myself”)—contributing to his depression and increased physical pain symptoms. However, in that particular moment, I was still too transfixed by Mr. M.’s newfound ability to express himself to consider what these angry words might mean. I asked (from the textbook of psychic elaboration) whether he remembered ever feeling this way before. His first association was to being burned in the restaurant, which was followed by surprising new details about how “helpful” everyone at the restaurant had been; his boss, Mr. M. reported for the first time, had even given money to two co-workers who accompanied him to the hospital. Then, almost immediately, Mr. M. spontaneously produced several photographs from his backpack. They were all of him posing and flexing his former, impressive physique. In each of these photographs, Mr. M. was wearing only a small bathing suit. I was speechless.

Mr. M. helped me to understand, telling me that what happened to him at the restaurant had “spoiled” him, had spoiled his “dream.” He explained that he had been a body-builder in his country and that he had always dreamt of competing as a body-builder in this country. Later in this same session, Mr. M. mentioned, for the first time, having served as a bodyguard, although he was careful not to mention any other details about this experience. He asked me: “What am I supposed to do with my life now? I feel like I’ve lost everything...”

When Mr. M. returned the following week, he once again reported increased physical pain symptoms, and this time his pain was accompanied by renewed passive suicidal ideation. Mr. M. was clearly demonstrating that he was quite *capable* of using the therapy space for psychic elaboration. However, in doing so, he was becoming ‘flooded.’ I needed to learn relatively quickly how to slow down this process of psychic elaboration. In the end, Mr. M.’s somatic symptoms took care of this for me; for several weeks thereafter, our sessions were marked by Mr. M.’s repeated references to just wanting to sleep “all the time.”

Dr. Anderson’s supervision helped me to appreciate the critical importance of moving slowly and giving Mr. M. explicit permission and tools for being more in control of our work together—while also vigilantly monitoring subtle, nonverbal cues that might indicate that he was becoming overwhelmed. What was probably most helpful to me about Dr. Anderson’s guidance—especially, with regard to the extremely difficult task of titrating Mr. M.’s gradual recollection, representation, and integration of his past trauma—was her emphasis on understanding trauma from a relational perspective. Dr. Anderson spoke about my patient’s trauma as not simply a breakdown of one’s physical

and psychological defenses, but as a loss of faith in both one's internalized and real-world relationships.

Around the time that Mr. M. began to, very slowly, indicate that he had, indeed, endured physical torture prior to arriving in this country, I had the following dream:

I'm in a war-torn foreign country. There are white-skinned soldiers on either side, with weapons; the natives are dark-skinned. Someone, one of the white soldiers decides to give one of the natives a gun. The dark-skinned native then becomes violent, unpredictable. He's shooting haphazardly, indiscriminately; everyone flees. He then comes after me. I'm hiding behind an old burnt-out shell of a car; but, I can't seem to escape. He catches me; I'm down on the ground. His bayonet is pointed straight at my forehead; I'm aware that I'm going to die. I'm helplessly recoiling in anticipation of either a shot through my head or the stab of the bayonet. There's no time to think; no words come; blankness. Then, my hand is touched by his hand. It's warm; warmer than what came before. I feel safer. He holds me; *cradles* me. I couldn't have expected this, what was happening to me.

Sharing my dream in supervision helped me to notice and reflect upon its many layers of meaning. For example, there were clearly aspects of my own struggle to imagine what my patient's experience of terror and the threat of annihilation might have been like. There were also signs of my expectations (or, hope) that that terrifying feeling could be transformed by things like "the touch of a warm hand," being held, or by being "cradled" by a stranger in a strange land. Importantly, with regard to this dissertation project, I had, once again, been confronted with the uncanny and mysterious ways in which my own body seemed capable of symbolizing aspects of the as-yet-unprocessed subjective experiences of my patient.

No single vignette could adequately capture the very long, slow process by which Mr. M. gradually revealed details of his physical torture. These revelations were

titrated and facilitated by my increasing ability to trust my own natural emotional and empathic responses in relation to Mr. M. Importantly—especially, with regard to striking an appropriate balance between Mr. M.’s revelations and his integration of these experiences—my supervisor and I carefully monitored how Mr. M.’s revelations seemed to also be coinciding with increasing evidence of his more stable object relations. In other words, Mr. M. appeared to be gradually rediscovering his faith in “good enough” others.

Likewise, there is no specific moment that adequately encapsulates how Mr. M. and I gradually came to trust the *real* relationship that was being forged between us, or which could adequately demonstrate how the very *real* feelings that were being evoked within our work together were permitting the gradual recovery of Mr. M.’s more regulated affective functioning—as well as *my own* more regulated empathic functioning.

However, over time, evidence of these fundamental shifts was undeniable. Mr. M. began to attend sessions more consistently, arrived on time, left phone messages, even smiled slightly when he and I would first greet each other. He began to ask more directly for things he needed—for example, ‘samples’ of his anti-depressants *before* he had run out of them. He would sometimes make rather odd statements like: “I am very tired today, but I’ve come as a way to say thank you for all that the ‘doctor’ (a reference to me) has done for me.” I remember feeling a little concerned at the time that his distant-sounding, passive words might be another of those subtle cues that Mr. M. was feeling overwhelmed. However, I eventually came to understand these new behaviors as Mr. M. trying on new ways of relating, which were inevitably somewhat stilted-sounding at first. There was also a new sense of vitality in his language—for example,

using metaphors to tell me how he felt “like an orphan” in this country, or that his insurance company made him feel “like a prisoner.” He began to speak about his pain in new ways, referring often to “my physical and moral pain” as his reasons for attending our sessions. Finally, he even began to notice *on his own* important patterns in his experience of pain such as, for example, when he said: “I feel pain *in my heart* for a week after we talk about those memories.”

Mr. M.’s more typical expressions of anger began to reveal hints of sadness, mourning, and longing for new relationships and a better future for himself. For example, after surviving a ganglia-block injection that went horribly wrong and caused him to spend several days in the hospital unable to speak or move his tongue, Mr. M.’s first descriptions of the event in therapy were: “I had no one to come with me to the hospital.” He would also spontaneously mention that he had been thinking about his family, as if challenging me to urge him to contact them—as I had done so often in my “hypo-manic” mode. One day, he shared with me the feelings of despair that had come over him during a visit to the gym; he reported that he was unable due to his injury to demonstrate “to the younger generation” how to use certain equipment—which I took as a clear reference to his natural comfort with being the responsible caretaker, but also to his newly emerging ability to express sadness. He also once told me how “the noises of *people* on the streets” sometimes distracted him from his pain. He even surprised me one day by telling me that he enjoyed seeking-out and going to street fairs in New York City—in order to regularly have his blood pressure or cholesterol checked.

Eventually, Mr. M. began to use his time in therapy to contemplate how he might someday work again, and be able to have a home of his own. One day he told me: “I only want some relief. I don’t need to be 100%. Some things in life have to be borne.”

Owing to Mr. M.'s dramatic awakening to the potential of relationships, I decided to search for a French-speaking support group for him. It was in the context of exploring this idea with him—specifically his anxieties about what he might talk about in such a group—that he was now able to reveal in significantly more detail than before some of the brutality he had experienced at war. Following that session, Mr. M.'s physical pain ratings were consistently much lower than before—approximately “4 out of 10”—in spite of the fact that he lost access to all of his pain medications during this period due to his insurance company's ongoing obstruction.

As our termination date approached (due to my leaving for internship), I experienced a kind of regressive recapitulation of my earlier hypo-manic tendencies—this time, focused almost entirely on helping Mr. M. to further elaborate his experience of torture and, ideally, commit to transferring his case to a specialized clinic for survivors of torture, which Bellevue happened to offer. I remember feeling like something irreplaceable was about to be lost. I felt especially compelled to push him in the direction of symbolizing his experience of torture. With Dr. Anderson's sensitive guidance, I learned, once more, how to let Mr. M. be the one in control, to trust the *gradual* healing process of integrating past traumatic experiences, and to have faith in the potential for future safe relationships to contain and continue Mr. M.'s process of recovery.

In one of our final supervision sessions, Dr. Anderson told me about a particular patient of hers whom she described as having had many more resources than Mr. M. In particular, Dr. Anderson described the difficulties of having to witness, and accept, her patient's “conscious or unconscious choice” of physical pain over the pains associated with remembering and re-experiencing past emotional trauma—even within the

relative safety of the psychotherapy. Mr. M. deserved this choice as well, and, in the end, I was also able to respect his decision—or, his autonomy to determine if and when he would further reveal his traumatic past or enroll himself in a specialized clinic for survivors of torture.

Our separation was very emotional. He asked me on several occasions if he could continue to work with me at my internship site. I, in turn, reflected upon his ability to make a strong connection with me, and how this capacity would certainly go with him and serve him well with his next therapist, and in the future he created for himself.

As I reviewed my notes prior to writing this case presentation, I highlighted a few of the things that Mr. M. told me near the end of our work together that, I think, illustrate how important my relatively disregulated empathic responses—in particular, experiences of somatosensory transmission—may have been to this treatment. Mr. M.'s words also speak to Dr. Anderson's conceptualization of the psychotherapy process, especially with patients suffering from severely disregulated affective functioning, as an "experiencing cure." On one occasion after revealing that he had been tortured, Mr. M. said: "I didn't talk about this with anyone for so long, but with you it's different; it's like you've become a part of my family and I can talk about this with you." On another occasion, he said: "it's been like we've gone through these things together; *they've affected both of us.*" I never told him how right he was. But, then again, I suppose I didn't need to.



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