Therapeutic presence: an exploration of Buddhist mindfulness, Winnicott and neuroscience

Susan A. Shelby

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ABSTRACT

There has been an explosion of interest in mindfulness within contemporary Western society and across diverse disciplines, including the mental health field with enthusiasm for the promise of how mindfulness enhances psychotherapy. It has been proposed that mindfulness training offers a tremendous resource for cultivating those desirable qualities present in a strong therapeutic relationship. In light of the importance of the therapeutic alliance and the promise of mindfulness, this theoretical thesis presents the nature of mindfulness from a Buddhist perspective and explores how mindfulness informs the therapeutic process and potentiates a clinician's therapeutic presence. The psychodynamic concepts of D.W. Winnicott and neuroscience offer a valuable palate in which to examine and generate a richer understanding of the phenomenon of mindfulness and how it informs the psychotherapeutic experience and enhances a clinician's mindful way of being. This theoretical thesis reveals an unexpected and significant synergy between these three lenses and a strong resonance with the values and ethics of the social work profession.
THERAPEUTIC PRESENCE: AN EXPLORATION OF BUDDHIST MINDFULNESS, WINNICOTT, AND NEUROSCIENCE

A project based on the independent investigation, submitted in partial fulfillment of the requirements for the degree of Master of Social Work.

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The embodied experience of mindfulness is often aroused through poetry. I have selected the poem, *For A New Beginning*, by the wonderful late Irish poet John O'Donohue to convey the gratitude and deep appreciation I feel to each of the authors whose writings inspired me and enliven these pages and to my family and friends who offered me palpable encouragement and support. ¹ I would also like to express special appreciation to Josh Miller for the mindful presence he brings to Smith College, Irene Rodriguez Martin for preparing me for writing with her meticulous instruction in research, and Christopher O'Rourke for his inspirational teaching, clinical wisdom, and his delight in being my second reader.

In out-of-the-way places of the heart,
Where your thoughts never think to wander,
This beginning has been quietly forming,
Waiting until you were ready to emerge.

For a long time it has watched your desire,
Feeling the emptiness growing inside you,
Noticing how you willed yourself on,
Still unable to leave what you had outgrown.

It watched you play with the seduction of safety
And the gray promises that sameness whispered,
Heard the waves of turmoil rise and relent,
Wondered would you always live like this.

Then the delight, when your courage kindled,
And out you stepped onto new ground,
Your eyes young again with energy and dream,
A path of plenitude opening before you.

Though your destination is not yet clear
You can trust the promise of this opening;
Unfurl yourself into the grace of beginning
That is at one with your life's desire.

Awaken your spirit adventure;
Hold nothing back, lean to find ease in risk;
Soon you will be home in a new rhythm,
For your soul senses the world awaits you.
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CHAPTER I

Introduction

Thesis Inspiration

As an older adult returning to graduate school in preparation to embark on my third professional career, I come to this thesis with an appreciation of theory and techniques within one's field of study and the breadth, depth, and new discoveries that arise when interdisciplinary fields cross. I have also come to appreciate that there is an invisible ground of being deeper than theory and technique that animates presence, transmitting this well-spring and transforming craft into artistry. Embracing these appreciations as I was formulating my thesis topic, I was particularly affected by a guest lecture presented on Mindfulness in Psychotherapy by Paul Fulton, Ph.D. during one of my semesters at Smith. In Fulton's (2012) lecture, he was focusing on what matters in psychotherapy and revealed that 15% of the success in psychotherapy is attributable to the treatment model and methods of the therapist, 40% of the success in psychotherapy is attributable to "extratherapeutic factors" such as the strength of a patient's social support and other resources available to the patient, their level of motivation, and situational considerations in the patient's life, 15% is attributable to the placebo effect, and the 30% remaining is attributable to the "common factors" that are present in effective therapy. Fulton explained that of these common factors, the qualities of the therapist and the therapeutic relationship are the "most potent predictor of a positive treatment outcome." What really piqued my interest was Fulton's proposal that mindfulness meditation offered a tremendous resource for
training therapists in the cultivation of some of those desirable qualities present in establishing a strong therapeutic relationship. It occurred to me that mindfulness was one of the animating forces that contributed to the invisible ground of being supporting all areas of life, and pertinent to Fulton's lecture and to my thesis formulation, the animating force contributing to the therapeutic presence in psychotherapy.

With this inspiration, I wanted my thesis design to revolve around the phenomenon of mindfulness and how mindfulness enhanced psychotherapy, in particular the therapeutic relationship.

**Literature Support**

Rubin and Babbie (2013) stress, "that for any evidence-based intervention to be effective, it must be provided in the context of a strong therapeutic alliance" (p. 33). Siegel (2010a) in referring to a 2005 study by Norcross, Beutler, and Levant, asserts that "the therapeutic relationship is one of the most powerful determinants of positive outcome" regardless of "the individual approach or clinical technique employed" (p. XI). *Mindfulness*, which "lies at the heart of Buddhist psychology" (Germer, 2013, p. 13) embodies the components of "awareness, present-centeredness, and acceptance" (p. 12) which reflect those essential qualities of empathy, warmth, and unconditional positive regard that have been supported by research to facilitate the desired therapeutic alliance (Rubin & Babbie, 2013). These essential qualities which are intrinsic to a successful therapeutic relationship and to mindfulness are the fruits cultivated in meditation practices which lie at the hub of mindfulness from a Buddhist perspective.

Psychiatrist Daniel Siegel (2010a), founder of the field of Interpersonal Neurobiology (Siegel, 2010c), proposes that “being mindful is a state of awareness that enables us to be flexible and receptive and to have presence” (p. 1). *Therapeutic presence* was also
"considered" by "Carl Rogers (1961)" "to subsume empathy, unconditional positive regard and genuineness" (Germer, 2013, p. 23). This capacity of "being present" which reflects the essence of mindfulness "can also be seen as the most important element of helping others heal” (Siegel, 2010a, p. 1). Considering the therapeutic benefit of developing mindfulness with oneself, with others, and in life, it may not come as a surprise that there has been an explosion of interest in mindfulness in the West with mindfulness spreading throughout secular settings such as health care, education, psychology, politics, childbirth, parenting, and the wider society (Williams & Kabat-Zinn, 2013). Germer (2013) notes that "in 2005" "only 365 peer-reviewed articles on mindfulness appeared in the psychological literature" (p. 12); however "by 2013 there were over 2,200 articles and over 60 mindfulness treatment and research centers in the United States alone" (p. 12).

Mindfulness holds great "potential" for "enhancing psychotherapy" (Germer, 2013, p. 3) for the clinician and the client. Germer (2013) identifies the three main approaches to integrating mindfulness within a clinical setting:

A clinician may 1) practice mindfulness, formally or informally, to cultivate therapeutic presence; 2) use a theoretical frame of reference informed by insights derived from mindfulness practice, the psychological literature on mindfulness; or 3) explicitly teach patients how to practice mindfulness (mindfulness-based psychotherapy). (p. 22)

Much of the emphasis of the application of mindfulness within the mental health setting has focused on the clinician's explicit teaching of mindfulness concepts and skills to clients (Germer, Siegel, & Fulton, 2013). The protocol for this explicit application of mindfulness evolved from the pioneering work of Jon Kabat-Zinn who in 1979 created the ground-breaking eight week program Mindfulness-Based Stress Reduction (MBSR) within a hospital setting to address the needs of patients living with chronic pain. Kabat-Zinn (2013) reflecting on the positive effects of mindfulness on these patients,"many of whom were falling through the cracks of the health care
system" (p. xxvii), states, "It was clear that there is something about the cultivation of mindfulness that is healing, that is transformative, and that can serve to give our lives back to us" (p. xxvii).

As mindfulness began to take hold in the psychotherapeutic context, the MBSR protocol has been adapted to address a wide range of psychological conditions (Kabat-Zinn, 2013b; Pollak, Pedulla, & Siegel, 2014; Germer et al., 2013). These adapted MBSR programs are typically conducted in a group setting, last 8-10 weeks with weekly meetings, and often include a day long meditation retreat (Pollak et al., 2014). Pollak et al. (2014) state that these programs "are more like meditation classes than psychotherapy groups" (p. 185).

Considering how to integrate mindfulness within psychotherapy, outside of this group MBSR format, is more complicated with many factors to take into account (Pollak et al., 2014). Pollak et al. (2014) elaborate: "Clinicians are just beginning to map this territory, without much data to guide us. Practices that support the development of mindfulness can be found in many different cultures, and most of these practices have evolved extensively over time" (p. 4).

Experienced psychotherapists with long-time Buddhist meditation practices (Kabat-Zinn, 2013; Germer et al., 2013; Pollak et al., 2014) emphasize the implicit approach of developing therapeutic presence through a personal mindfulness practice as the basis for any clinician interested in integrating mindfulness within a psychotherapeutic context, "irrespective of the theoretical approach or techniques used in treatment," (Fulton, 2013, p. 59). Pollak et al. (2014) state, "The foundation for becoming more mindful human beings—and in the process, more mindful therapists—is our own mindfulness meditation practice" (p. 27).

The growing body of research focusing on "mindfulness-oriented psychotherapy" (Germer, 2013, p. 22) has centered on the MBSR mindfulness-based interventions (Brown,
Ryan, & Creswell, 2007; Kabat-Zinn, 2013; Germer et al., 2013). Results of this research include improvements in the relapse rate for "patients who have suffered three or more major depressive episodes" (R. Siegel, 2014, para. 7); increased ability to sustain attention, improvements in immune function, and quantifiable brain changes (Davidson & Begley, 2012); and reduction of loneliness and reduction in "expression of genes related to inflammation" in older adults (Kabat-Zinn, 2013, p. xiv).

A number of qualitative studies (Birnbaum, 2008; Christopher, Chrisman, Trotter-Mathison, Schure, Dahlen, & Christophere, 2011) have been conducted within university counseling programs to measure the outcome of mindfulness meditation courses taken by counseling graduate students in the hoped for development of the therapeutic skills essential for the therapeutic alliance. Some of the qualities reported by the participants of these studies were an increase in self-awareness, self-acceptance, emotional regulation, and presence.

There has also been a recent trend of studies attempting to quantitatively measure mindfulness in daily living using questionnaires (Rimes & Wingrove, 2010; Baer, Lykins, & Peters, 2012). A significant quantitative study (Christopher, Charoensuk, Gilbert, Neary, & Pearce, 2009) applied several of these measurement scales to undergraduate students at a large American university and at a large university in Bangkok, Thailand. Thailand was chosen "because of the noted impact that Buddhism has on daily life in Thailand" which offered fertile ground to see if the Westernized constructs of mindfulness capture mindfulness as experienced on Buddhist soil (Christopher et al., 2009, p. 595). Their (Christopher et al., 2009) findings suggested "that Eastern and Western conceptualizations of mindfulness may have important differences" (p. 607). The differences found in the Eastern and Western conceptualizations of mindfulness reinforce the subjective experience of long-time practitioners of Buddhist
meditation: Mindfulness "is an embodied state of being that cannot be accurately described using language" (Hick, 2008, p. 3). Christopher et al. (2009) state, "Most Buddhist traditions dictate that mindfulness cannot be easily extracted and analyzed in isolation from inherently interrelated concepts" (p. 593, citing Buddhadasa Bhikkhu, 1988; Rosch, 2007). The attempt to isolate the individual components of mindfulness is akin to distillation efforts popular in the West: knowing that broccoli is rich in nutrients, there is an attempt to extract the essential ingredients to put in a pill rather than recognizing that the potency lies within its synergistic effect and thus the health benefits come from the whole food. This extraction process highlights one of the cultural differences between the East and West and underscores the challenge of researching mindfulness.

A number of qualitative studies, attempting to capture this holistic quality of mindfulness, have been conducted with clinicians who are experienced meditators to explore how mindfulness meditation informs the psychotherapeutic experience (Brenner & Homonoff, 2004; Cigolla & Brown, 2011; Rothapupt & Morgan, 2007; Nanda, 2005). Common themes that emerged from these studies with experienced meditators were: being in the moment, feeling connected, keeping an open heart and open mind to hold multiple perspectives, and mindfulness as a holistic experience. These themes capture the synergistic quality of mindfulness and reflect the existence of therapeutic presence as a fruit of meditation practice.

It is my hope that my theoretical thesis will contribute new understandings to the conversation on mindfulness by bringing together two different ways of knowing: the subjective experience and objective data through the exploration of the foundation of mindfulness through the teachings of the Buddha, the objective lens of neuroscience, and the subjective experience of Winnicott. The intersection of these two ways of knowing offer validation for the subjective
experience and illuminate neuroscientific concepts pertinent to mindfulness, the therapeutic relationship, and psychotherapy. The exploration of these different ways of knowing and the presentation of mindfulness from its historical perspective through the teachings of the Buddha will offer another dimension to the current body of research.

Relevance for Social Work

This growing interest in mindfulness has relevance for social work. The findings reported in the studies with counseling graduate students and clinicians who are experienced meditators revealed qualities such as increased self-awareness, self-acceptance, emotional regulation, presence, being in the moment, and keeping an open heart and open mind to hold multiple perspectives which reflect the effects of self-care and those qualities that potentiate a successful therapeutic alliance. The cultivation of these qualities also build a foundation for preparing the social worker, no matter the setting, for deepening her reservoir for meeting the mission of the social work profession: "to enhance human well-being and help meet the basic human needs of all people, with particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in poverty" (NASW, 2008, Preamble). With consideration for the social worker's well-being and professional longevity, NASW (2009) emphasizes that "professional self-care is an essential component in competent, compassionate, and ethical social work practice, requiring time, energy, and commitment" (p. 269). This recognition by NASW (2009) that self-care practices are critical also recognizes that as helpers we can not do our best work and be fully present if we have not attended to "preventing, coping, and addressing" "the natural, yet unwanted, consequences of helping" (p. 269, citing Lopez, 2007). The cultivation of self-awareness and keeping an open-heart and open mind to hold multiple perspectives are also foundational qualities essential to meet social work values of
"recognizing the strengths that exist in all cultures" (NASW, 2008, Cultural competence and social diversity) and "Respect the inherent dignity and worth of the person" (NASW, 2008, Ethical principles). At the core of social work values and mindfulness from a Buddhist perspective is an acknowledgement of the suffering of life. Mindfulness practices cultivate increased skillfulness with addressing suffering and being present in the face of suffering with compassion and wisdom.

**Thesis Focus and Introduction to Lenses**

In light of how important the therapist-client relationship is and the promise held in mindfulness and its relevancy for social work practice, this theoretical study will focus on understanding the nature of mindfulness from the Buddhist perspective and how the cultivation of mindfulness enhances psychotherapy and potentiates a clinician's therapeutic presence. I chose the context of mindfulness from the Buddhist perspective since the Buddha was historically the first practitioner of mindfulness and his teachings from over 2500 years ago form the foundation of mindfulness. I selected the work of D.W. Winnicott, who was a pediatrician, British Object Relations theorist, and psychoanalyst, as my psychodynamic lens to understand the phenomenon of mindfulness due to his contribution of the good-enough holding environment, a central concept in "social work practice across service settings" (Applegate and Bonovitz, 1995, p. 7). I also suspected a connection between Winnicott's holding and mindfulness in that they both share a core quality of attentiveness. I decided to include neuroscience as my second lens to examine the phenomenon of mindfulness as it offers an external representation of the internal process of meditation. Additionally, the neuroscience lens provides a framework for how the brain works and the concept of neuroplasticity presents a link
to understanding the importance of mindfulness, the good-enough mother, and the holding environment.

**Overview of Chapters**

The following chapter, Chapter II, presents my conceptualization of this thesis design and an elaboration of my theoretical framework which provides my rationale for the selection of the lenses included in this study. The next section of Chapter II presents an overview of the composition of each chapter and explains how mindfulness will be analyzed from the perspective of Winnicott and neuroscience. Chapter II concludes with a discussion of the considerations of writer's bias, strengths, limitations, and intended outcomes for this study. Chapter III presents the phenomenon of mindfulness from the Buddhist perspective. Relevant concepts from D.W. Winnicott and an examination of how mindfulness is understood from a Winnicottian perspective is presented in Chapter IV. Chapter V presents relevant concepts from neuroscience with an examination of how mindfulness is understood from a neuroscience lens. This thesis concludes with the discussion chapter, Chapter VI, which includes an analysis of the intersection of mindfulness, Winnicott, and neuroscience and illuminates the synergistic contribution of these lenses.

The following chapter presents my conceptualization and elaboration of the methodology of this thesis, the chapter compositions, writer bias, strengths, limitations, and intended outcomes.
CHAPTER II

Conceptualization and Methodology

Conceptualization of Thesis and Theoretical Framework

Inspired by Fulton's (2013) contention that mindfulness meditation practices offer a relevant training ground to cultivate those therapeutic qualities that are critical to establishing the desired therapeutic alliance and the hypothesis that mindfulness animates the clinician's therapeutic presence, this theoretical thesis explores the research question: *What is the nature of mindfulness from a Buddhist perspective and how do the concepts from Winnicott and neuroscience contribute to a richer understanding of mindfulness and the value of mindfulness in informing the therapeutic process and enhancing a clinician's therapeutic presence?*

This thesis design revolves around the phenomenon of mindfulness and draws on the original source of that well-spring, the Buddha. The Buddha's teachings date back over 2500 years and form the foundational teachings on mindfulness. The Buddha's teachings on suffering are also germane to psychotherapy and to the field of social work whose focus is on alleviating suffering and "help[ing] meet the basic human needs of all people, with particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in poverty" (NASW, 2008, Preamble). Mindfulness meditation evolved for the Buddha out of his desire to address suffering and is nestled within a larger framework of Dharma which are the overall teachings and practices of the Buddha. The Buddha did not want this Dharma to become dogma; rather he invited interested individuals to engage in the self-examination practices of mindfulness.
meditation to see for themselves if there was value in the Dharma. The cultivation of a mindfulness meditation practice along with a direct experience with the Dharma teachings over time produce the fruits of wisdom and compassion, aspired qualities for life and for meeting the challenges of social work practice. In addition, with the growing interest in integrating mindfulness within psychotherapy, I wanted to understand the nature of mindfulness from the Buddha's teachings. Thus, mindfulness from a Buddhist perspective was very compelling for my choice for the phenomenon of this thesis.

D.W. Winnicott, the British Object Relations theorist, pediatrician, and psychoanalyst, was chosen as my psychodynamic lens in which to examine the phenomenon of mindfulness due to his conceptualization of the holding environment which is central to social work practice. The holding environment encompasses person-in-environment which is a core principle in social work: "the environmental forces that create, contribute to, and address problems in living" (NASW, 2008, Preamble). Winnicott also emphasized the relational dimensions of the holding environment, describing the particular relational sensibilities inherent in a good-enough mother which were conducive to providing the psychosocial support for the healthy development of the individual. Winnicott's notions of good-enough holding and the good-enough mother also applied to the psychotherapeutic setting, illuminating how these qualities of good-enough facilitated the change process in support of providing a corrective experience in the promotion of the patient's discovery of his true self. Winnicott's good-enough holding also contains the capacity to be present with self and other which reflects a quality of self-awareness that is desirable for therapeutic presence and is cultivated in mindfulness. Winnicott's notions of good-enough offer a rich palate in which to discuss mindfulness and desirable qualities in the therapist.
Thus, I chose D. W. Winnicott as a valuable asset to understanding mindfulness and the therapeutic relationship.

I chose neuroscience as my second lens to examine the phenomenon of mindfulness because advances in brain imaging have begun to provide objective evidence for the subjective benefits reported by long-time meditators. In this way, the confluence of the two lenses, the subjective experience and objective evidence, bring forth a greater knowing than either lens alone. Recent discoveries in neuroscience have confirmed how an individual's neural development is shaped during the early years and how the brain continues to change throughout one's lifespan. The malleability of the brain that enables this change to occur is called neuroplasticity. Hence, neuroscience provides a valuable lens for understanding the scientific underpinnings for why meditation, the good-enough mother, and good-enough environment are so important.

Chapter Composition and Analytical Framework

This theoretical thesis begins with a presentation of the phenomenon of mindfulness in Chapter III. In order to create a context for the mindfulness movement within the United States, this chapter provides a brief history and current perspectives on mindfulness. This is followed by an in-depth exploration of how mindfulness is understood within the teachings of the Buddha and includes an experiential exercise to get a taste of mindfulness. This chapter concludes with a broad-stroke view of the relevancy of mindfulness within psychotherapy.

The two following chapters focus on the individual lenses and include in their first section an exploration of that particular lens which is then followed in the last section by an analysis of mindfulness. Key aspects from the phenomenon chapter have been selected as points for discussion in the analysis of mindfulness from each of these lenses. These key aspects
include: Components of mindfulness, The Dharma, Buddha nature, Sangha, and relevancy to psychotherapy. Unique features from these two lenses are also applied in the discussion.

Chapter IV presents the psychodynamic lens of D.W. Winnicott. This chapter begins with a biographical sketch of Winnicott's life as a way to establish a context of influences that shaped his work. This is followed by an in-depth exploration of key concepts of Winnicott's developmental theory and his approach to psychotherapy. I adopt an interpretative lens in imaging how a Winnicottian perspective would understand the phenomenon of mindfulness using the key aspects of mindfulness and points of parallel that were unique to Winnicott. For example, I use the Buddha's story as an interpretative lens to illustrate a Winnicottian perspective that brings together the state of going-on-being, the true self, and the meditative experience.

Chapter V presents the lens of neuroscience. This chapter begins with an overview of the brain as a relational and embodied organ followed by an overview of neuroplasticity. The chapter then provides a detailed description of the anatomical brain's structure and function to establish a backdrop for understanding the neuroscience findings on meditation. In order to appreciate the significance of meditation as a creditable focus of research, I present a contextual perspective. This is followed by a presentation of relevant findings in this emergent field of contemplative neuroscience. The final section presents a discussion of the neuroscience perspective for understanding the phenomenon of mindfulness from a Buddhist perspective. Neuroplasticity and the inclusion of the Dalai Lama's involvement in the contemplative neuroscience field offer unique points to the discussion.

This thesis concludes with Chapter VI, a discussion chapter, which begins with a summary of the aim of this thesis followed by a summary of key points from the phenomenon, Winnicott, and neuroscience chapters. The next section contains a detailed exploration of the
intersection of these three lenses, revealing the unexpected and significant confluence and interdependence of these thought streams in the generation of a new way of understanding mindfulness and how it informs the psychotherapeutic experience and enhances a clinician's mindful way of being. The next section presents a discussion on the intersection of mindfulness and social work followed by the strengths and limitations of this study. The last section of Chapter VI is a conclusion of the findings.

Consideration of Bias, Strengths, Limitations and Intended Outcomes

The overall strength of a theoretical thesis is that through the process of bringing together different theories, a new understanding of one's phenomenon emerges. Coming to this new understanding is a dynamic process of reading from wide sources, synthesizing, thinking, analyzing, reflecting, and maintaining an openness to how each piece of information influences and shapes the ultimate unfolding into material form. In my selection of phenomenon and lenses, I had no idea of the synergy that would be generated. In this way, a strength that I brought to this project was a commitment to be open and curious, and to engage in a meditation practice to deepen my self-awareness and resilience to face the paradoxes and the uncertainty inherent in the creation of this body of work. In this same way, a bias I brought to this study was a value in mindfulness and meditation. My introduction to meditation was years before it was an accepted part of the mainstream culture and I have personally experienced great benefit from this first-hand experience with meditation. I also had the wonderful experience of facilitating a yoga and mindfulness group during each of my field placements. Yet, even with my meditation and mindfulness experience, I had only a cursory familiarity with the details of the Buddha's teachings on mindfulness so undertaking the study of mindfulness from the Buddhist perspective was an exciting endeavor for me. Another bias that I brought to this study
was a resonance with the concerns raised in the phenomenon chapter about the extraction of mindfulness from its Buddhist roots. Discovering these concerns in my research for the phenomenon chapter made sense to me as I could feel how my own personal mindfulness experience and the curriculum I was using as a guide in my field placement lacked the deeper and wider holding that gives mindfulness its rootedness, fullness, and animation. In staying open and curious, I discovered relevant lessons from both the Buddha and Winnicott about being grounded in dharma and how they shared their message in a pragmatic way, placing emphasis on adjusting their language to reach wide audiences and encouraging self-exploration, authenticity, and spontaneity from this knowledge base of dharma.

A limitation of a theoretical thesis is that the findings can be less generalizable since the data is not gleaned from subjects, either through qualitative or quantitative means. Also, the findings from a theoretical study are less generalizable due to the wide variance that can occur from the selection of lenses used to examine one's phenomenon. I chose not to address my thesis topic through a quantitative study due to the concerns raised in the Christopher et al. (2009) study about the challenges of measuring mindfulness through mindfulness scales. I also chose not to pursue a qualitative study even though I am very drawn to the phenomenological method which captures the personal experiences and meanings of the research participants. In my review of the literature, the qualitative studies contained small sample sizes, as would my research project, which limits the beneficial gain of the study in furthering the conversation on mindfulness. The research studies using the MBSR protocol offered consistency; however I noted the difficulty in evaluating studies following different models due to an inconsistency of reporting the participants' choice and experience with meditation. An overall challenge, as noted in the Christopher et al. (2009) study and in the findings from my phenomenon chapter, is that
mindfulness is an embodied experience and efforts to isolate its components do not reflect the fullness of mindfulness. Therefore, mindfulness presents challenges to research.

It is my hope that my theoretical study will offer a contribution to the conversation about mindfulness and the value of mindfulness in informing the therapeutic process and enhancing a clinician's therapeutic presence. The unique combination of the coming together of the subjective through the lived experience of the Buddha and Winnicott's work and the objective through neuroscience in this theoretical study provides validation and value in their distinct and complementary ways of knowing. Further, the distinct findings from the Buddha's teachings, Winnicott's notions, and neuroscience hold strong resonance with social work values and their synergistic effect adds potent relevancy to social work practice.

In Chapter III, I proceed to present the phenomenon of mindfulness through the Buddhist perspective.
CHAPTER III

Phenomenon: Mindfulness

Mindfulness, which "lies at the heart of Buddhist psychology" (Germer, 2013, p.13), has "traveled a long way from its homeland in southeast India" (Kornfield, 2010, p. 5) finding its way onto Western soil in an increasing range of secularized settings such as healthcare, psychology, education, and science laboratories (Williams & Kabat-Zinn, 2013). As enthusiasm about the promise of ancient mindfulness practices spreads within the contemporary Western society and across diverse disciplines, a concern has arisen "about whether the very essence of such practices and perspectives might be unwittingly denatured out of ignorance and/or misapprehended and potentially exploited in inappropriate and ultimately unwise ways (Williams & Kabat-Zinn, 2013, p. 1). The following words by American Buddhist scholar Bhikkhu Bodhi capture the essence of this migration of mindfulness and contain both a blessing and cautionary advice for the caring of this precious gift:

It is inevitable that mindfulness and other practices adopted from Buddhism will find new applications in the modern West, where worldviews and lifestyles are so different than those of southern and eastern Asia. If such practices benefit those who do not accept the full framework of Buddhist teaching, I see no reason to grudge them the right to take what they need. To the contrary, I feel that those who adapt the Dhamma to these new purposes are to be admired for their pioneering courage and insight. As long as they act with prudence and a compassionate intent, let them make use of the Dhamma in any way they can to help others.

At the same time, I also believe that it is our responsibility, as heirs of the Dhamma, to remind such experimenters that they have entered a sanctuary deemed sacred by Buddhists. Thus, respectful towards their sources, they should pursue their investigations with humility and gratitude. They should recognize that while the Dhamma bids everyone come and take what they need, they are
drawing from an ancient well of sacred wisdom that has nourished countless spirits through the centuries and whose waters still retain their potency for those who drink from them today. (Bodhi, 2013, p. 36)

Bodhi is part of this dynamic conversation between Buddhist scholars, Buddhist teachers, and mindfulness-based clinical and research based professionals discussing their concerns about mindfulness in the West (Fraser, 2013; Williams & Kabat-Zinn, 2013; Kabat-Zinn, 2013b). Williams and Kabat-Zinn (2013) suggest that from a mindful stance of pausing, openness, and curiosity, "new understandings" will emerge from these conversations "that will provide both direction and benefit to this promising field" (p. 1).

To grasp the meaning of mindfulness is no easy undertaking, and as conveyed by Williams and Kabat-Zinn, understanding the meaning of mindfulness is in a state of flux. This chapter will present a brief overview of the evolution of mindfulness in the West, explore the meaning of mindfulness as reflected in its Buddhist roots, and include a brief overview of the meditation practices utilized to cultivate mindfulness. This chapter will also provide an overview of mindfulness within psychotherapy, including the qualities cultivated through a mindfulness meditation practice, and its relevancy for the therapist-client relationship.

Brief History

The seeds for the fertile growth of mindfulness and meditation on American soil have been sown and nurtured for more than fifty years. This brief history provides a background for the evolution of mindfulness in our present day and provides a context for those individuals who have been influential in its growth and continue to be leading voices today. In the 1960s, Thich Nhat Hanh, a Vietnamese Zen Buddhist monk, came to America to study comparative religion at Princeton University, taught Buddhism at Columbia University, and reached out to Martin Luther King for support in ending the Viet Nam War. After a talk he gave at Cornell University in 1966, he was refused entrance back into Vietnam for four decades due to his non-violent
peace activism work which he referred to as "Engaged Buddhism" (Oprah, 2010). He then made his home in Southern France where he founded Plum Village, a Buddhist monastery and meditation center. He has continued traveling to the United States giving talks on Buddhism and leading mindfulness retreats ever since (Mobi Ho, 1975; Oprah, 2010).

Also in the 1960s and 1970s, inspired young American adults, Joseph Goldstein, Sharon Salzberg, and Jack Kornfield, (Kornfield, 2008) each traveled to Asia to pursue Buddhist studies in the Theravada, Mahayana, and Vajrayana traditions. Upon returning to the United States, these three individuals began leading meditation retreats and, in the 1970s, co-founded the Insight Meditation Society (IMS) in Barre, Massachusetts. IMS along with Spirit Rock Insight Meditation Center in California, founded by Kornfield, have been and continue to be central hubs for an immersion in Buddhist studies and meditation retreats (Kornfield, 2008).

Simultaneously in the 1970s Tibetan teacher Chogyam Trungpa Rinpoche founded Naropa Institute which has since become an accredited university integrating contemplative studies in the Shambhala tradition and Western academics (Boyce, n.d.). In its early years, Naropa served as an important gathering place for budding meditators interested in learning from visiting Buddhist teachers and scholars (Epstein, 1995). Another important seed was planted in the 1970s by Harvard trained MD Herbert Benson who, along with Dr. Robert Keith Wallace, published the first study on the physiological effects of Transcendental Meditation. The study demonstrated the "relaxation response," a term Benson coined to indicate "a physiological state opposite to stress" "characterized by decreases in metabolism, breathing rate, heart rate, and blood pressure" (Benson, 1996, p. 131; Cromie, 2002). This recognition of the relationship between mind and body raised Benson's hope "that self-care will stand equal with medical drugs, surgery, and other therapies that are now used to alleviate mental and physical suffering"
In the 1970s, Richard Davidson, Ph.D., Clifford Saron, Ph.D., and Daniel Goleman, Ph.D. examined the science behind meditation, gaining traction for ongoing robust scientific research with the Dalai Lama's establishment of the Mind and Life Institute in 1987 (Fraser, 2013).

In 1979, Massachusetts Institute of Technology (MIT) scientist, Jon Kabat-Zinn, created the ground-breaking eight week program Mindfulness-Based Stress Reduction (MBSR) which culminated from the alchemy of these early scientific studies. Writings by Trungpa and Thich Nhat Hanh, and Kabat-Zinn's personal studies and practices in Zen, Korean, and Tibetan Buddhist and yogic traditions were highly influential in Kabat-Zinn's creation of MBSR (Kabat-Zinn, 2013b). Aware of the potential obstacles from medical practitioners, insurance companies, and patients who were hesitant to buy in to this revolutionary program, Kabat-Zinn (2013b) chose secular language to frame this pioneering program which introduced mindfulness, meditation, and yoga within a medical setting to address the needs of patients experiencing chronic pain for whom physicians felt they had exhausted all other available interventions. Kabat-Zinn (2013b) explains:

> the intention and approach behind MBSR were never meant to exploit, fragment, or decontextualize the dharma, but rather to *recontextualize* it within the frameworks of science, medicine (including psychiatry and psychology), and healthcare so that it would be maximally useful to people who could not hear it or enter into it through the more traditional dharma gates, whether they were doctors or medical patients, hospital administrators, or insurance companies. (p. 288)

Kabat-Zinn (2013b), providing insight into his choice of the term, "stress reduction," to both capture the essence of the nature of this clinical program and to reflect its Buddhist foundation, states the following:

> And because naming is very important in how things are understood and either accepted or not, I felt that the entire undertaking needed to be held by an umbrella term broad enough to contain the multiplicity of key elements that seemed essential to field a successful clinical programme in the cultural climate of 1979.
Stress reduction seemed ideal, since pretty much everybody can relate to that instinctively, even though 'reduction' is something of a misnomer. The term stress also has the element of dukkha embedded within it. In fact, some Buddhist scholars translate the term 'dukkha' in Buddhist texts as 'stress' (see for example, Thanissaro Bhikkhu 2010). (p. 288)

MBSR produced successful outcomes which are chronicled in Full Catastrophe Living (Kabat-Zinn, 2013a) and in scientific papers from the Stress Reduction Clinic published in the 1980s (Kabat-Zinn, 2013b). As mindfulness has begun to take hold in the psychotherapy world, the MBSR protocol has been adapted to address a wide range of psychological conditions in a group setting from a mindfulness orientation (Kabat-Zinn, 2013b). The nourishment of each of these early seeds continues to shape the landscape of mindfulness in America today.

**What is Mindfulness?**

As I undertake the task of grasping the meaning of mindfulness and its variant uses in the literature, I notice my head spinning and tension filling my body. It feels like a formidable undertaking and I am reminded of the Hindu tale, "Blind Men and the Elephant," that was translated into a poem in the 19th century by John Godfrey Saxe (Shaw, Queen, & Westbrook, n.d.). In this folk tale, there are six men with limited sight, who, in their desire to learn about the elephant, each touch a portion of this beast and believe they are "experiencing the whole elephant" (Shaw et al., n.d.). For example, one of the men touching the elephant's knee proclaims the elephant is "like a tree," another man touching the elephant's trunk proclaims the elephant is "like a snake," and another man touching the elephant's ear proclaims the elephant is "like a fan" (Shaw et al., n.d.). Each man, indeed, through his direct experience captures a portion of the elephant; yet none alone conveys the whole, the fullness of the elephant.

Similar to this folk tale, varying aspects of mindfulness appear in the literature, conveying the challenge of defining mindfulness and the complexities of capturing the fullness of its meaning. Like the six visually impaired men's desire to know the elephant, the message...
imparted by Buddhist scholars, Buddhist teachers, and mindfulness-based clinicians with long-time meditation practices is that the fundamental way of knowing mindfulness is through direct experience. Germer (2013) states that "mindfulness has to be experienced to be known" (p. 8) and Kabat-Zinn (2013b) affirms that "mindfulness can only be understood from the inside out" (p. 284). Kabat-Zinn (2013b) adds that mindfulness is "a way of being" (p. 284) and referencing the Chilean philosopher and scientist, Francisco Varela's use of the term, "first-person experience" (p. 284), he speaks about the first-person experience as the living foundation. Kabat-Zinn (2013b) asserts that "without that living foundation, none of what really matters is available to us in ways that are maximally healing, transformative, compassionate, and wise" (p. 284).

**Mindfulness as Direct Experience.** For those of you unfamiliar with this direct experience, let's pause for a brief taste. Take a moment and bring your awareness to your experience in this moment. The breath is always with us wherever we are and is often the first focal point of attention in cultivating mindfulness. As you bring your attention to your breath, notice where in your body the breath is most noticeable: at the tip of your nostrils, inside your mouth, in your chest, or perhaps in the rising and falling of your belly. Gently allow your attention to be with each in-breath and out-breath. No need to change anything, just allowing the breath to breathe itself. You may notice that a thought, feeling, or physical sensation grabs your attention. With open-focused awareness, one of the mindfulness meditation practices, one might explore one of these qualities or just lightly hold the fullness of this awareness. However with a single-focused, concentrative awareness of the breath, as soon as you notice your attention has moved away from the breath, with gentleness and kindness, come back to the breath. If interested, you might stay with the breath for several more cycles. Breath meditation
helps to provide an anchor and foundation for the rich assortment of mindfulness practices. As you bring your attention back to reading this document, I invite you to pause periodically to dip into the wellspring of your breath.

This direct experience is the portal to mindfulness which is integral to the "sacred wisdom" (Bodhi, 2013, p. 36) contained in the teachings and practices of the Buddha. These teachings and practices of the Buddha are referred to as Dhamma (in the Pali language) or Dharma (in Sanskrit) and will be used interchangeably throughout this thesis. Pali was "the popular vernacular of the people" of India at the time of the Buddha "approximately 400 BCE" and Sanskrit is "the sacred language of Vedas" that made a "comeback as a literary and religious language" "by the Indian scholar Panini" (Jason, 2010).

Complexities of Understanding Mindfulness

Understanding mindfulness is a complex undertaking because of a number of contributing factors. American Buddhist scholar Bodhi (as cited by Burton, 2013) offers a helpful framework for making sense of the complexity of mindfulness by describing "two complementary but distinguishable forms of Dharma- teaching" (p. 34). These two forms of Dharma discourse are "those of canonical Buddhism and those of adaptive Buddhism" (Burton, 2013, p. 34). Canonical discourses are "the faithful replication of the Buddha's message in the form he delivered it" (p. 34) in the Satipatthana Sutta which is "the most influential text in the Pali Canon on the systematic practice of mindfulness" (Bodhi, 2013, p. 21). Whereas, adaptive teachings are the "conveyance of the essence of the Buddha's teachings in the common vernacular of the host cultures, using whatever similes, constructs, and examples the teachers deemed accurate and appropriate to the task" (Burton, 2013, p. 34). Burton (2013, referencing Bodhi) explains that "the Buddha's teachings would never have been disseminated first
throughout Asia and then globally if both forms had not been used" and that the teachings of mindfulness by teachers of the West "tend to lie on the adaptive end of the continuum" (p. 34).

Another factor contributing to the diverse perspectives of mindfulness is the recognition that as Buddhist teachings evolved through India, China, Japan, Indonesia, Afghanistan, Tibet, Mongolia, and Vietnam, multiple lineages of traditions arose such as Theravada, Mahayana, Varjrayana, Tibetan, and Zen (Kornfield, 2008, 2011). As Buddhist teachings have migrated to America, these once "isolated Asian traditions are now meeting for the first time in centuries" resulting in a "fertile interaction" of sharing, learning, and challenging divergent points of view in "what we can begin to call Western Buddhism" (Goldstein, 2002, p. 2).

Further, discerning the Buddhist discourses present unique challenges. The teachings of the Buddha "were preserved and transmitted orally, from one generation of reciters to the next" requiring a compression of "the main points into simple repetitive formulas that were conducive to easy memorization" but lacking in "lucid explanations" (Bodhi, 2013, p. 23). Also these teachings are contained within the Satipatthana Sutta, which are "purport[ed] to be the Buddha's own words" as well as in the Abhidharmaka, "which is a systemization" of the Buddha's words (Dreyfus, 2013, p. 47). There are both Pali and Sanskrit translations of these teachings contributing further complexity to deciphering the meaning of mindfulness.

In light of the presence of all these factors, Kornfield (2010) validates the confusion, contradiction, and paradox in the different approaches with this reminder:

The point of representing this paradox is to show that there are many valid approaches to the same fundamental truths. If the reader gains the understanding that the Dharma cannot be found in the contrasting forms and techniques of Buddhism but only in the underlying experience, then he is really ready to practice. (p. 19)

Kornfield's invitation to practice brings us back to direct experience, "the living foundation" (Kabat-Zinn, 2013b, p. 284) of which "mindfulness is the key" (Kornfield, 2010, p. 17).
Mindfulness from a Buddhist Perspective

Mindfulness from a Buddhist perspective has its roots within the 2500 year history of the Buddha's teachings. Although Buddhism functions as a religion for many people, (Kornfield, 2008), Kornfield adds the following:

Buddhism is not some system or idea or set of beliefs. It is an invitation to have a direct experience of the mystery of your own body and mind. We explore what causes our suffering and what makes us free. We practice skillful means such as mindfulness of the body, loving-kindness, forgiveness, and so forth. These practices are all in the service of liberation, not of creating some new set of ideas or beliefs. (Latvala, 2014, p. 42)

The Buddha's teachings, referred to as the Dharma, are pragmatic and systematic "teachings and practices" illuminating the path to understanding the nature of body and mind in order "to bring about happiness" and liberation from suffering (Kornfield, 2008, p. 7). The Dalai Lama has said repeatedly that these "Buddhist teachings are not a religion, they are a science of mind" (cited in Kornfield, 2008, p. 7). After the Buddha gained enlightenment, he was asked "What are you?" His response was, "I am awake" (Kornfield, 2011, p. 11). The Buddha's teachings have "great transformative power to awaken us from the dreamlike patterns of our lives" (Goldstein, 2013, p. xiv) and awaken us to our wisdom and compassion (Shambhala, n.d.).

The Buddha's teachings on mindfulness are the gateway to this path of awakening, wisdom, and compassion. These mindfulness teachings are contained in the Satipatthana Sutta, the Buddha's discourse on the four foundations of mindfulness (Goldstein, 2002, 2013; Kornfield, 2008). These four foundations include the cultivation of "mindfulness of body, mindfulness of feelings, mindfulness of the mind and mental states, and mindfulness of the Dharma" (Goldstein, 2002, p. 91). The Buddha identifies three mental qualities: "being ardent, clearly knowing, and being mindful" (Goldstein, 2013, p. 4) as central to the cultivation of these four foundations of mindfulness. Goldstein (2013) offers various ways to understand these
mental qualities. **Ardency**, the first quality of mind is "a balanced and sustained application of effort," "suggests warmth of feeling, a passionate and strong enthusiasm or devotion because we realize the value and importance of something," and "gives us the strength to continue through all the difficulties of the journey" (Goldstein, 2013, p. 4).

The second quality of mind, **clearly knowing**, "is the ability to clearly comprehend what is taking place" and involves an awareness of our "purpose," "appropriateness of what we're doing," and an understanding of "the motivations behind our actions" (Goldstein, 2013, p. 11).

The third quality of mind, **mindfulness**, is "the root of Dharma," "the body of practice," "the fortress of the mind," and the "aid to the wisdom of innate wakefulness" (Goldstein, 2002, p. 89, citing Nysohul Khen Rinpoche). Nysohul Khen Rinpoche's words underscore the prominent and essential place mindfulness holds within the Buddha's teachings, not only as a quality of mind, but also as the gateway to awakening.

In summary, mindfulness is not easily definable and is best known from the inside out through direct practice. Also multiple views of mindfulness exist (Dreyfus, 2013; Goldstein, 2002) as a result of the evolution of Buddhism and its various lineages over the centuries. According to religious scholar George Dreyfus (2013), "There is no single view that can ever hope to qualify as the Buddhist view of mindfulness" (p. 42). With respect to this complexity, I will highlight the more common meanings of this elusive and "elastic" (Bodhi, 2013, p. 22) word.

**Three Components of Sati**

_Sati_, the Pali word for mindfulness suggests three components: "awareness, attention, and remembering" (Germer, 2013, p. 5). Since awareness and attention are intertwined, I will discuss these two components together and then proceed to a discussion of "remembering."
Awareness and Attention. "Consciousness encompasses both awareness and attention" (Germer, 2013, p. 6, citing Brown and Ryan, 2003). Kornfield (2008) describes consciousness as having two fundamental aspects: a sky-like nature which is "open, transparent, timeless, and wave-like" (p. 40) and a particle-like nature which is "momentary, rapid, sensory, and flavored by mental states" (p. 40). Kornfield (2008) offers a metaphor to describe this sky-like nature of consciousness:

As with the sky, all kinds of clouds and weather conditions can appear in it, but they have no effect on the sky itself. Storms may appear or disappear, but the sky remains open, limitless, unaffected by all that arises. Consciousness is unaffected by experience, just like the sky. (pp. 38-39)

Kornfield (2008) states that this "clear open sky of awareness" consciousness has also been compared to a mirror: "reflective, luminous, untarnished, and peaceful," and "unchanged by whatever images, beautiful or terrible, may appear within it" (p. 39). Thus, this sky-like, or mirror, aspect of consciousness is an "open space of awareness" that is "clear, transparent, timeless, and without conflict - allowing for all things but not limited by them" (Kornfield, 2008, p. 47). The particle-like nature of consciousness "arises and passes away" within this open sky of awareness as different "states, feelings, and experiences" (Kornfield, 2008, p. 41). Through mindfulness training, "we can notice the distinction between consciousness and all the transient states and experiences that arise and pass away within it" (Kornfield, 2008, p. 41). Kornfield (2008) emphasizes that by learning to rest in this open space of awareness, "we become unafraid of the changing conditions of life" (p. 42).

Germer (2013, citing Brown & Ryan, 2003) states, "In actuality, awareness and attention are intertwined, such that attention continually pulls 'figures' out of the 'ground' of awareness, holding them focally for varying lengths of time" (p. 6). Thus, mindfulness has also been referred to as a "watchman," "the guard who is on the lookout for when we get carried away in
mindlessness" (Goldstein, 2002, p. 90). Germer (2013) explains "We may drive a familiar route on 'autopilot,' vaguely aware of the road, but respond immediately if a child runs in front of us" (p. 6). This waking up out of mindlessness and becoming aware of the present moment is what Thich Nhat Hanh (1975) calls the "miracle of mindfulness." Hanh (1975) elucidates:

Consider, for example: a magician who cuts his body into many parts and places each part in a different region—hands in the south, arms in the east, legs in the north, and then by some miraculous power lets forth a cry which reassembles whole every part of his body. Mindfulness is like that—it is the miracle which can call back in a flash our dispersed mind and restore it to wholeness so that we can live each minute of life. (p. 14)

Mindfulness has also been described as "naked or bare attention", "the clear and single-minded awareness of what actually happens to us and in us at the successive moments of perception" (Epstein, 1995, p. 110). Epstein (1995) explains that bare attention is "just the bare facts, an exact registering, allowing things to speak for themselves as if seen for the first time, distinguishing any reactions from the core event" (p. 110). Goldstein (2013) elaborates on the characteristics of bare attention:

The power and strength of bare attention come not from special experiences but from a sustained continuity of awareness. We're simply listening to, being aware of, and receiving the contact of whatever presents itself. It's like listening to a new piece of music when we're relaxed and attentive at the same time. (pp. 230-231)

Goldstein (2013) observes that each of the traditions "are all pointing to different aspects of our experience" (p. 18) and "we can see them all simply as skillful means to free the mind" (p. 19). Ultimately, the invitation is "to make mindfulness--the quality of being present in the moment, awake to what is happening--the heart of our practice" (Goldstein, 2002, p. 90).

**Remembering.** Mindfulness, as remembering or recollecting, refers to calling upon the virtues of the Buddha, Dharma, and Sangha as a "refuge of safety," as symbolic reminders of "awakening the mind here-and-now" (Sumedo, n.d.), and as "support for our journey"
Taking refuge in the Buddha, Dharma, and Sangha appear to be the heart, the underpinnings, and the guiding light of the Buddha's teachings. These three refuges are often called the "Three Jewels or Triple Gem because for one who is seeking the way to liberation, they are the most precious things in the world" (Bodhi, n.d., Sangha, para.1).

**Taking Refuge in the Buddha**

Taking refuge in the Buddha is a symbolic reminder "to be wise, to be alert, [and] to be awake" (Sumedo, n.d.). Sumedo explains, "We habitually take refuge in worry, doubt, fear, anger, greed, and so on," but taking refuge in the Buddha imparts a "presence of mind" reminding us that we "can act wisely and live wisely" by "knowing the nature of conditions as we're experiencing them," and not "being caught up in reacting" (n.d.). Kornfield, (2008) adds further clarity on wisdom: "A wise response" which emerges out of "awareness" "includes whatever action, fierce at times, is the most caring toward life, our own and others" (p. 210).

The significance of taking refuge in the Buddha's wakefulness is conveyed by the words of psychologist and Buddhist teacher Tara Brach (2012b):

> When Buddhists take refuge in the historical Buddha, whose name literally means 'one who is awake,' they are drawing on the inspiration of a fellow human who was able to realize his inner freedom. For those who follow the Buddha, reflecting on his courageous investigation of reality and his awakening to a timeless and compassionate presence brings confidence that this same potential lies within each of us. (pp. 53-54)

Kornfield (2008) suggests that the symbolism of the Buddha is a reminder for us to see and rest in "our Buddha nature" (p. 12) and in "the Buddha nature of all beings" (p. 290). This Buddha nature is "a recognition of our innate nobility (goodness) and the freedom of heart that is available wherever we are" (p. 20).
Taking Refuge in the Dharma

Brach (2012b) explains that taking refuge in the Dharma means "working with our inner life through meditation practice; dedicating ourselves to wise, ethical behavior, and understanding the [Buddha's] teachings or truths that guide us on the spiritual path" (p. 47). Integral to the Buddha's teachings is "a fundamental reverence for life and a commitment not to cause harm" (Brach, 2012b, p. 49), "to act with stewardship for the things of the earth" (Kornfield, 2008, p. 333), and to cultivate "the spontaneous integrity of the awakened heart," a heart "free to love," "unshakable" in authenticity and kindness (Kornfield, 2008, p. 333). The "very essence of the Buddha's awakening" (Goldstein, 2013, p. 287) is his teachings on the Four Noble Truths and the Eightfold Path which provide the foundation for understanding the nature and path out of dukkha. Dukkha, the Pali word for suffering, carries the "literal meaning of 'hard to face'" and has the "more subtle description of the unsatisfactory nature of the human predicament" (Epstein, 2013, p. 12). The Buddha's message of the nature and causes of suffering are followed by the Eightfold Path, an eight step path to liberation and awakening (Goldstein, 2013, p. 320). The eight steps contained within the Eightfold Path include practical trainings in three groups: a) "the morality group of right speech, right action, and right livelihood; b) "the concentration group of right effort, right mindfulness, and right concentration; and c) "the wisdom group of right view and right intention" (Goldstein, 2013, p. 320). It is significant that right mindfulness is nestled within the eightfold path because mindfulness "must be guided by right view, motivated by right intention, grounded in ethics, and be cultivated in conjunction with right effort;" otherwise it is mindfulness as "bare attention without an ethical component" (Wallace, 2007, para. 1). Sumedo (n.d.) reminds us that the essence of taking refuge in the Dharma is through direct experience which has previously been noted about mindfulness:
We can only know Dhamma through direct experience. It is like the taste of honey—if someone else tastes it, we still don't know its flavor. We may know the chemical formula or be able to recite all the great poetry ever written about honey, but only when we taste it for ourselves do we really know what it is like. It is the same with Dhamma: we have to taste it, we have to know it directly. (Paccattam veditabbo vinnuhi, para. 16)

**Taking Refuge in the Sangha**

*Sangha* means "those who are joined together, thus a community" (Bodhi, n.d., Sangha, para. 2). Hanh (2014), who was refused entry into Viet Nam during the war and took political asylum in France where he created a new sangha, speaks of suffering and the loss of his sangha: "There is personal suffering; there is societal suffering; and there is the tragic place where personal and societal suffering meet. But in community all of our suffering—in being heard and held—can soften, just a little" (p. 55).

In addition to surrounding oneself with a community for support, connection, and teachings, Kornfield (1993) speaks of the importance of a teacher's role in creating sangha and imparting the wisdom of the dharma. In the Buddhist tradition, teachers are the living masters of the multiple lineages that have evolved from the Buddha's teachings. Kornfield (2010) explains that "traditionally a monk stays with his first teacher for a minimum of five years," studying the Dharma and developing a disciplined practice of meditation (p. 2). The practice of meditation, instilled by the Buddha's teachings and the tool to "come into harmony with the Dharma" (Kornfield, 2010, p. 2), is fortified through the teacher's guidance, inspiration, and encouragement. "The gift of all wise teachers is encouragement to find within ourselves our Buddha nature—free, independent, and joyful in the midst of all life" (Kornfield, 2008, p. 243). Ultimately, the jewel of taking refuge in sangha, is to "acknowledge the inseparable connections of all our lives" (Kornfield, 2008, p. 291).
The Cultivation of Mindfulness through Meditation

Mindfulness in daily life "enables you to fully know your experience in each moment" in the body and mind, "not to identify with the impulses of your strong emotions or act from them" in an unskillful manner, and to be able to "stay with that experience, whether it is pleasant or unpleasant," but not "get stuck in a bad mood for the rest of the day" (Moffit, 2008, p. 11). This quality of presence in our daily life is available to us through the training and practice of meditation, the vehicle the Buddha identified for the cultivation of mindfulness. According to Kornfield (1993), "Meditation can be thought of as the art of awakening" and "The key to this art is the steadiness of our attention" (p. 56). Various Buddhist traditions teach multiple meditation practices; however "mindfulness, as the faculty of sustaining continuous attention on a chosen object, is indispensable for all kinds of meditation" (Wallace, 2007, para.14). It is common for the breath to be chosen initially as the object of concentration and the anchor to return to when the mind starts to wander as the mind will do since this is its nature (Epstein, 1995; Goldstein, 2013; Kornfield, 1993, 2008; Moffit, 2008). Once awareness is grounded in the breath, mindfulness of the body, feelings, mental states and emotions, and impersonal truths of life can be cultivated as described in the Buddha's teachings of The Four Foundations of Mindfulness (Epstein, 1995; Goldstein, 2013; Moffit, 2008).

In grounding one's awareness in the breath, the meditator calls upon bare attention, as the "attentional posture" required to take our "untrained, everyday mind as its natural starting point" and follow "throughout the meditative path," "both in the beginning practice" of breath awareness and progressing into the more advanced meditative practices (Epstein, 1995, p. 110). In addition to bringing the presence of bare attention to the Four Foundations of Mindfulness, Kornfield (2008) describes the "Four Principles for Mindful Transformation: Recognition,
Acceptance, Investigation, and Non-identification (RAIN)” that are often taught in Western mindfulness retreats. The R is for recognize whatever is happening in this moment in your body. The A of allow is an invitation to simply notice what is present with an attitude of willingness. The I of investigate is an invitation to go a little deeper with curiosity and kindness. Brach (2012b) suggests a question such as: "What about this most wants my attention?" (p. 74). The N of non-identification is to imagine whatever your awareness brought forth to rest within the larger sky of awareness. Brach (2012b) suggests after taking a sacred pause of RAIN to "notice if there is more natural presence" (p. 76).

RAIN helps facilitate the ability to distinguish the particle-like awareness of one's thoughts, feelings, and experiences, meet this awareness with acceptance, and learn how to rest in the open sky-like nature of consciousness (Kornfield, 2008). Kornfield (2008) also advocates the inclusion of loving-kindness meditation practices to awaken compassion for self and others. Additionally, Kornfield (2008) emphasizes the importance of cultivating an attitude of gentleness and kind-hearted understanding, friendly interest and curiosity, and a grateful and tender heart to this art of meditation. Hanh (1975) conveys how a steady diet of daily of mindfulness as concentration flourishes into mindfulness as a way of being:

Thus mindfulness is at the same time a means and an end, the seed and the fruit. When we practice mindfulness in order to build up concentration, mindfulness is a seed. But mindfulness itself is the life of awareness: the presence of mindfulness means the presence of life and therefore mindfulness is also the fruit. (pp. 14-15)

Recapitulation of Aspects of Mindfulness

The following is a recapitulation of the key points of mindfulness as presented from this Buddhist perspective: 1) The most fundamental way of knowing mindfulness is through first-person, direct experience; 2) This direct experience of mindfulness is cultivated through meditation; 3) Mindfulness encompasses three components: awareness, attention, and
remembering; 4) Awareness and attention include the broader field of consciousness characterized as having a sky-like nature, an open space of awareness in which transient states of feelings, mental states, and experiences rise and fall, much the same way changing weather conditions rise and fall within the ever present open sky; 5) Learning to rest within this larger open space of awareness allows us to be with whatever arises with a fearless presence; 6) Mindfulness also has a watchman quality, bringing us out of mindlessness back to the present moment; 7) Mindfulness also has the quality of bare attention—an exact registering of what is happening moment to moment; 8) Remembering includes taking refuge in the Buddha, the Dharma, and the Sangha; 9) Mindfulness as a daily practice is the seed that grows into the fruit of mindfulness as a life of awareness, a way of being.

In summary, a holistic working definition of mindfulness might be: Mindfulness, as open sky awareness and particle-like awareness, contains clear seeing that is both accepting and discerning and is held within the interconnectedness of community, ethics, wisdom, compassion and the teachings of the Dharma that reveal the way out of suffering to liberation and joy.

The Sacred Pause. Before the discussion of mindfulness shifts into its use in psychotherapy, I invite, you the reader, to take a "sacred pause" with me (Brach, 2003, p. 49). Psychologist and Buddhist teacher, Tara Brach, often calls upon the words of Victor Frankl as a reminder of the power of mindfulness and this sacred pause: "Between the stimulus and the response there is a space and in that space lies our power and our freedom" (2012b, p. 61, citing Victor Frankl).

Pausing, allow your attention to come to your breath. Be with your in-breath and your out-breath and ever so gently allow your breath to deepen and lengthen. Take several full breaths as you bring your attention inward to whatever sensations, feelings, or thoughts
predominate. "Allow your inner experience to be as it is" (Brach, 2012b, p. 76); meeting whatever arises with kindness and gentleness. Invite the nourishment of RAIN to gently shower you with refreshment.

Brach (2012b) suggests that brief periods of pausing with RAIN throughout the day nourishes us by offering an unconditional, kind, and spacious presence to rest in that allows whatever arises to freely come and go. Similar to Kornfield's imagery of the open sky of awareness to represent the vast open nature of consciousness, Brach (2013) uses the metaphor of the ocean: "When we trust that we are the ocean, we are not afraid of the waves" (A heart that is ready for anything, para. 5).

Mindfulness in Psychotherapy

Brach is among numerous psychotherapists who are integrating their life-long studies and practices of Buddhism and meditation into the realm of psychotherapy. Before mindfulness was accepted within the mainstream, a group of these psychotherapists, many from Harvard, began monthly meetings in the 1980s to explore the application of mindfulness to psychotherapy (Germer, Siegel, & Fulton, 2013). In more recent years, there has also been a surge of mindfulness-based approaches that have adapted Kabat-Zinn's original MBSR protocol to a wide variety of clinical conditions (Germer, 2013; Fulton, 2013). Psychologist and Buddhist meditation practitioner Germer (2013) speaking of the "unprecedented convergence of the Eastern traditions of contemplative psychology with modern scientific psychology and psychotherapy" (p. 34) marvels:

To have at our disposal psychological techniques drawn from a 2,500-year-old tradition that appear to change the brain, shape our behavior for the better, and offer intuitive insights about how to live life more fully, is an opportunity that is difficult to ignore. Only time will tell what we make of it. (p. 34)
Germer (2013) ponders whether mindfulness is its own theoretical orientation, "a new model of therapy," or "a curative process that underlies all therapies" (p. 25). Germer (2013) suggests that no matter the theoretical framework of the psychotherapeutic process, "from a mindfulness perspective we're not seeking a life free of pain, but rather greater emotional freedom through a mindful, accepting, compassionate relationship to our inevitable difficulties" (p. 27).

Pollak, Pedula, and Siegel (2014), long-time practitioners of mindfulness meditation, psychotherapists, and experienced clinicians applying mindfulness within the psychotherapeutic context, state that mindfulness within psychotherapy echoes the three components of mindfulness (awareness, attention, and remembering). These authors (Pollak et al., 2014) suggest that "of particular importance for psychotherapy" (p. 2) is mindfulness characterized by "acceptance" (p. 2) of the "unfolding experience moment to moment" (p. 2) with "an attitude of warmth, friendliness, and compassion" (p. 2). These authors (Pollak et al., 2014) along with Germer (2013) and Fulton (2013) propose that mindfulness can be integrated into psychotherapy along a continuum "from the implicit influence of therapists' own mindful awareness of what happens in treatment to explicitly teaching mindfulness exercises to patients" (p. 59). Germer (2013) adds that the implicit application of mindfulness into psychotherapy also includes "the use of a theoretical framework or reference informed by insights derived from mindfulness practice, the psychological literature on mindfulness, or Buddhist psychology" (p. 22).

Both psychotherapy and Buddhist psychology share the intent to alleviate psychological suffering (Siegel & Fulton, 2013). The Dalai Lama (1995) embraces the use of mindfulness within the psychotherapeutic context:

Recently, psychotherapists with their background in science and medicine, have begin to explore the possibilities of employing Buddhist techniques in a therapeutic context. I feel that is entirely consistent with the aim of overcoming suffering and improving the welfare of all sentient beings. (p. xiii)
Psychologist and Buddhist meditation practitioners Fulton and Siegel (2013) elaborate on the relevancy of meditation to psychotherapy:

Like Western psychotherapy, mindfulness meditation developed in response to psychological suffering. And like psychotherapy, the domain of mindfulness practice includes thoughts, feelings, perception, intentions, and behavior. Given this focus, Buddhist psychology naturally shares with its Western counterpart a basic framework for understanding psychological disorders. (p. 37)

When "aspiring clinicians" ask Germer (2013) "how to become a mindfulness-oriented psychotherapist?," his answer is: "Get the best clinical training you can find….and meditate" (p. 22). Fulton (2013) contends that "irrespective of the theoretical approach or techniques used in treatment," (p. 59) the implicit influence of the clinician's own mindfulness meditation practice and training holds great value by potentiating the cultivation of those "qualities underlying a successful treatment relationship" (p. 62).

A formal mindfulness meditation practice is conducive to fostering "the cultivation of attention," "compassion and empathy," "openness and acceptance," an increased capacity to be with whatever emotions, thoughts, or experiences arise, and an increased "resonance" and "attunement" to oneself and others (Fulton, 2013, p. 62). These mindfulness qualities reflect those essential qualities that have been supported by research to facilitate an effective therapeutic relationship. Such qualities include accurate empathy, warmth, unconditional positive regard, congruence, and repair of alliance ruptures (Fulton, 2013). In essence, mindfulness meditation cultivates presence which according to Neuropsychiatrist and Attachment Researcher Dan Siegel (2010a) is the "most important element of helping others heal" (p. 1). The importance of the clinician's own personal meditation practice has also been noted as essential to having an inside knowing of mindfulness in order to be an effective and authentic mindfulness-based therapist, and is in fact also a requirement for becoming a MBSR mindfulness-based therapist (Kabat-Zinn, 2013b).
Circling around to the starting point of Kabat-Zinn's groundbreaking MBSR program which essentially put mindfulness on the map due its success and subsequent clinical applications, the definition of mindfulness Kabat-Zinn used has become the most commonly found in the psychological literature. This definition by Kabat-Zinn (2013a) is: "the awareness that arises by paying attention on purpose, in the present moment, and non-judgmentally" (p. xxxv). As this dynamic conversation between Buddhist scholars, Buddhist teachers, mindfulness-based clinicians and researchers, noted at the beginning of this chapter, has evolved, Kabat-Zinn (2013b) explains that his intention in offering "operational definitions [were] not meant to be definitive statements" of the classical Buddhist texts; rather these definitions were offered as "an instrumental and operational emphasis on what is actually involved in the gesture of awareness, to use Francisco Varela's elegant phrase" (p. 291, citing Depraz, Varela and Vermesch, 1999; Varela, Thompson and Rosch, 1991). Kabat-Zinn (Williams and Kabat-Zinn., 2013) exclaims that "the idea that mindfulness meditation would become integrated into mainstream medicine and science to the extent that it already has" "is nothing short of astonishing" (p. 3). Kabat-Zinn (2013b) emphasizes:

> Mindfulness can only be understood from the inside out. It is not one more cognitive-behavioral technique to be deployed in a behavior change paradigm, but a way of being and a way of seeing that has profound implications for understanding the nature of our own minds and bodies, and for living life as if it really mattered. (p. 284)

**Summary**

This chapter presented an overview of the evolution of mindfulness in the West and the complexities of understanding and defining mindfulness against the backdrop of the current dynamic conversation among Buddhist scholars and teachers and mindfulness-based clinicians. This chapter also explored mindfulness from traditional Buddhist teachings with its emphasis on the cultivation of mindfulness through meditation. This chapter also considered, in broad
strokes, mindfulness' relevancy and use in psychotherapy. The operational definitions utilized by Kabat-Zinn were presented along with the following working definition of mindfulness gleaned from the Buddhist perspective:

Mindfulness, as open sky awareness and particle-like awareness, contains clear seeing that is both accepting and discerning and is held within the interconnectedness of community, ethics, wisdom, compassion and the teachings of the dharma that reveal the way out of suffering to liberation and joy. (Brach, 2012b; Goldstein, 2013; Hahn, 2014; Kornfield, 2008)

The following chapter will present relevant concepts from D.W. Winnicott and examine mindfulness through a Winnicottian lens.
CHAPTER IV

Object Relations through a Winnicottian Lens

This chapter will use the lens of D. W. Winnicott, a British Object Relations theorist, to view the phenomenon of mindfulness from the Buddhist perspective. First, an overview of D. W. Winnicott's life will be presented as a way to establish the context of timely events and relationship dynamics that offer an enriched understanding of influences that shaped his life's work. Next this chapter will highlight key concepts of Winnicott's developmental theory and present Winnicott's approach to psychotherapy in broad strokes. The chapter will conclude with an analysis of understanding the phenomenon of Buddhist mindfulness from a Winnicottian perspective.

Winnicott: A Biographical Sketch

Donald Woods Winnicott was born to Frederick and Elizabeth Winnicott on April 7, 1896 and died in 1971 (Phillips, 1988). They were an upper-middle class family living in Plymouth on the south coast of Devon, England. He was the youngest and only son and had two sisters, five and six years older than him. His wife, Claire, states that Winnicott "was so much loved and was in himself lovable" that his being the youngest "seems likely [to] [be] a deliberate effort" "on the part of his mother and sisters, not to spoil him" (Winnicott, 1989, p. 7). Claire Winnicott (1989) continues:

While this did not deprive him of feeling loved, it did I think deprive him of some intimacy and closeness that he needed. But as Donald possessed (as do his sisters still) a natural ability to communicate with children of almost any age, the
communication between children and adults in the Winnicott home must have been of a high order. (p. 7)

Claire Winnicott (1989) provides additional background to the Winnicott household:

There is no doubt that the Winnicott parents were the centre of their children's lives, and that the vitality and stability of the entire household emanated from them. Their mother was vivacious and outgoing and was able to show and express her feelings easily. Sir Frederick Winnicott (as he later became) was slim and tallish and had an old-fashioned quiet dignity and poise about him, and a deep sense of fun. (p. 5)

Claire Winnicott (1989) states, "There is no question from his earliest years Donald Winnicott did not doubt that he was loved, and he experienced a security in the Winnicott home which he could take for granted" (p. 6). Claire Winnicott (1989) adds, "The household always included a nanny and a governess" and "as a small child Donald was certainly devoted to his nanny" (p. 6).

Claire Winnicott (1989) shares her impression:

From "this basic position [of love and security], Donald was then free to explore all the available spaces in the house and garden around him and to fill the spaces with bits of himself and so gradually to make his world his own. There is a pop song which goes 'Home is my heart.' That is certainly how Donald experienced it, and this gave him an immense freedom which enabled him to feel at home anywhere. (p. 6)

When Winnicott was 13, he went to a boarding school which was "an exciting opportunity for him where "he could perform himself in new ways" (Phillips, 1988, p. 30). One of the delights of his boarding school experience was reading aloud in a dramatic way to the boys in the dormitory and singing in the choir (Phillips, 1988, p. 31). While in boarding school, Winnicott broke his collar-bone playing rugby which "consolidated his wish to be a doctor" (Phillips, 1988, p. 31). Winnicott had not mentioned this desire to his father, "knowing that father expected me to enter his flourishing business" (Phillips, 1988, p. 31). Even so, his father gave him approval to enter college in 1914 "to read medicine," and Winnicott wrote to a friend "so excited that all the stored-up feelings about doctors which I have bottled up for so many
years seemed to burst and bubble up at once" (Phillips, 1988, p. 31). Winnicott's medical training was affected by World War I. He served as the only Medical Officer on a destroyer ship and completed his medical training in 1918 at the end of the war (Phillips, 1988).

Close to the same time that Winnicott qualified in the specialty of pediatrics in 1920, he was introduced to Freud's *Interpretation of Dreams* which inspired his interest in psychoanalysis (Phillips, 1988). He became an adult psychoanalyst in 1934 and a child psychoanalyst in 1935 (BBC Radio 4, 2013). In an effort to bridge the divide between pediatrics and psychoanalysis, Winnicott introduced doctors to the importance of children's feelings and the relationship between emotions and physical symptoms in his first book, *Clinical Notes on Disorders of Childhood* (Phillips, 1988). In stressing the value and awareness of children's feelings, Winnicott also acknowledged the cultural influence of "'The Englishman' 'not want[ing] to be upset, to be reminded that there are personal tragedies all over the place, that he is not really happy himself, in short – he refuses to put off his golf'" (Phillips, 1988, p. 48, citing Winnicott, 1938).

Tragedies were soon to worsen with WW II and the evacuation of children in Britain (Phillips, 1988). Winnicott, along with psychiatrists, John Bowlby and Emmanuel Miller, wrote a letter to the *British Medical Journal* in 1939 explaining the vulnerabilities and psychological problems posed to young children separated from their homes (Phillips, 1988). Winnicott received the appointment of Psychiatric Consultant to the Government Evacuation Scheme in 1940, and it was through this work that he began working with the psychiatric social worker Claire Britton, whom he eventually married (Phillips, 1988). Prior to the war, as a pediatrician and psychoanalyst, Winnicott had stressed the significance of the mother–child relationship on the child's development (Phillips, 1988). Through his work with the evacuation hostels,
Winnicott expanded his ideas about "good-enough parenting" and the "good-enough environment," coining the term, "management" to imply "his notions of good parenting" beyond the home environment (Phillips, 1988, p. 66). Winnicott observed the important role each member of the evacuation hostel played in providing "consistent and continuous management" (Phillips, 1988, p. 66, citing Winnicott, 1944), noting that the psychiatric social worker "was the link with the child's parents and so was 'able in some degree to gather together the separate threads of the child's life and to give him the opportunity of preserving something important to him from each stage of his experience'" (Phillips, 1988, p. 66, citing Winnicott, 1944).

Although Winnicott was inspired and influenced by Freud, his metabolization of the psychoanalytic process was also influenced by Charles Darwin and Melanie Klein (Phillips, 1988). Winnicott became one of the psychoanalytic theorists in Great Britain to formulate a theory of object relations which moved "psychoanalysis away from a one-person" "to a two-person psychology" (Applegate & Shapiro, 2005, p. xiii). Applegate and Bonivitz (1995) propose "that the developmental and clinical theories of Donald Woods Winnicott offer a uniquely useful set of concepts for articulating the 'silent,' supportive and sustaining, relationship-focused interventions that constitute the core praxis of social work across service settings" (pp. 6-7).

**Key Concepts of Winnicott's Developmental Theory**

Grolnick (1990) describes Winnicott as "an old-fashioned, hands-on pediatrician at heart, and yet he thrived on the intrapsychic world of the psychoanalyst" (p. 9). The blending of pediatrics and psychoanalysis can be seen in how Winnicott's observations, listening, and being with mothers and children formed the basis of his theories and informed his psychoanalysis (Winnicott, 1971/2005). Winnicott viewed the mother-infant relationship as formative in his
theory of human development, a theory of the child's development from absolute dependence, to relative dependence, to independence (Applegate & Bonovitz, 1995; Phillips, 1988). He believed that this development was fluid: "In fact the human child is all the time at all stages" (Applegate & Bonovitz, 1995, p. 29, citing Winnicott, 1988). A significant contribution that came forth from Winnicott's life work as a pediatrician and psychoanalyst was the importance he placed on the essential nature of the caregiving and facilitating environment (Phillips, 1988). The following words by Winnicott (1987/2002) introduce this perspective on development:

> In the beginning the whole of development takes place because of the tremendously vital, inherited tendencies towards development—towards integration, towards growth, that thing that one day makes the child want to walk, and so on. If there is a good-enough environmental provision, these things take place in that child. But if the facilitating environment is not good enough, then the line of life is broken and the very powerful inherited tendencies cannot carry the child on to personal fulfillment. (p. 234)

Ultimately, through this good-enough environmental provision, Winnicott (1971/2002) believed the individual would develop the capacity to play, live creatively, and "feel that life is worth living" (p. 95).

The concepts of *holding* and *good-enough* undergird Winnicott's (1987/2002) theory of development. He uses the term, holding, to illustrate the "way the mother, in the fullest sense, holds the child, which includes the way the child is held in the mother's mind as well as in her arms," in her awareness before birth, and throughout her prenatal care (Phillips, 1988, p. 30). Winnicott extends his conceptualization of holding (1987/2002) to encompass the developing child, the family unit, and beyond, and "to describe case-work, as practiced by the caring professions" (p. 51). His (1987/2002) use of good-enough captures the nature of this holding that is essential to support the "baby's inherited tendencies that fiercely drive the individual on in a growth process" (p. 233). Good-enough also carries Winnicott's message that the mother need not be perfect; in fact being perfect would prevent the necessary kinds of failures of adaptation in
the mother that foster the child's movement forward in his development to independence (Applegate et al., 1995). Winnicott (1987/2002) explains:

A facilitating environment must have a human quality, not a mechanical perfection, so the phrase 'good-enough mother' seems to me to meet the need for a description of what the child needs if the inherited growth processes are to become actual in the development of the individual child. (pp. 233-234)

In addition, good-enough allows for the repairs in misattunement that "turn[s] despair into positive emotions" and "lead[s] to the growth of the infant's sense of mastery" (Lewis, 2000, citing Tronick & Gianino).

Although Winnicott (1971/2005) uses the phrase, "good-enough mother," his reference to mother "refer[s] to maternal provision:" "the total attitude to babies and their care" experienced by "who it is caring for the baby" (p. 191). Applegate & Bonovitz (1995) assert "that he excludes neither fathers nor other caregivers from his formulations and uses 'mother' as a kind of shorthand to capture dimensions of the nurturing provision" (p. 31). Thus, the phrase, "good-enough mother" and reference to mother in this thesis refer to these dimensions of the nurturing provision and anyone in the role of caregiving.

Winnicott noted the presence of particular relational sensibilities that the good-enough mother provides to nurture the good-enough facilitating environment. He (1987/2002) observed that the mother's prenatal and perinatal preparation creates a state of total and complete preoccupation with her infant, a state he called, "primary maternal preoccupation" (p. 73). When the mother is in this state of preoccupation, she "give[s] over to identification with the baby," (Winnicott, 1987/2002, p. 234) sensing and fully adapting to her baby's needs; thus creating a state of omnipotence for the baby where the mother and baby are "at one" (p. 17). Her gestures, voice tone, and gentle rocking, along with her attunement to the baby's nonverbal signals are helping the infant "feel that the self dwells in and throughout the body" (Applegate &
Bonovitz, 1995, p. 36). Winnicott (Applegate & Bonovitz, 1995) believed that this body sense was vital to the infant's "feeling thoroughly alive and was the seat of the true self" (p. 36). Also, the mother's sensitive and reliable adaptation to her baby's needs supplies the infant with "an auxiliary ego-function" (Winnicott, 1987/2002, p. 34) "before the [baby's] senses have been organized" and before the baby has developed "an autonomous ego" (p. 33). In time, the good-enough mother, still maintaining "ego support," "adapt[s] less and less completely" "according to the infant's growing ability to account for failure of adaptation and to tolerate the results of frustration" (Winnicott, 1987/2002, p. 14). This holding environment is held together by the mother's devotion and her reliable and predictable care giving (Winnicott, 1987/2005).

Winnicott (1971/2005) places great emphasis on the role of the holding environment in the individual's development of self and the capacity to be alone in the presence of another, a state he called, *going-on-being*. The infant develops a sense of security through the reliability of loving care, and begins to make sense of her inner life through the mother's good-enough mirroring back the baby's internal states (Tuber, 2008). The mother's accurate-enough reflection back to the infant helps lay the foundation for the baby to feel real and discover her true self (Winnicott, 1971/2005). Winnicott (Tuber, 2008) believed that the true self emerged only in the presence of someone who is emotionally available but not intrusive. He describes this as going-on-being, a state of relaxation that allowed the baby to tune into his own internal experience (Tuber, 2008). In time "the child internalizes the soothing aspects of [this] ego relatedness and gradually becomes able to experience internal continuity and safety without someone else present" (Applegate & Bonovitz, 1995, p. 125). However, the child's (Tuber, 2008) "loss of true self and hence some loss of creativity and feeling real" (p. 51) occurs when "she is forced into a reactive mode" to cope prematurely with the needs of another" (Epstein, 2008, p. 11).
child's compliance represents a false self (Tuber, 2008) which is "a need to hide or even dissociate from one's central core," (p. 50) whereas the true self represents authenticity and spontaneity which reflects "a capacity to have a central, isolated core" (p. 50).

Winnicott (1971/2005) conceptualizes "a potential space between the mother and the baby or joining mother and baby" (p. 64) that "paved the way for a playing together in a relationship" (p. 64). He (Applegate & Bonovitz, 1995) "believed that play derives from the capacity to be alone in the presence of another" (p. 47) and "implies trust in others and in the stability of the environment" (p. 47). Winnicott (1971/2005) states: "It is in playing and only in playing that the individual child or adult is able to be creative and to use the whole personality, and it is only in being creative that the individual discovers the self" (pp. 72-73).

**A Winicottian Approach to Psychotherapy**

Winnicott drew upon his clinical experience as a pediatrician in his work as a psychoanalyst. He (1971/2005; 1987/2002) states:

> It fell to my lot to be a psychoanalyst who, perhaps because of his having been a paediatrician, sensed the importance of this universal in the lives of infants and children, and wished to integrate his observations with the theory that we are all the time in the process of developing. (p. xvi)

From this lived experience as a pediatrician, he conveyed the notion of the mother-infant dyad and the good-enough holding environment within the context of psychoanalysis (Winnicott 1971/2005/1987/2002). Winnicott (1987/2002) described successful psychoanalysis as the weaving of attention to the patient's developmental process within this professional facilitative environment:

> All we do in successful psychoanalysis is to unhitch developmental hold-ups, and to release developmental processes and the inherited tendencies of the individual patient. In a particular way we can actually alter the patient's past, so that a patient whose maternal environment was not good enough can change into a person who has had a good-enough facilitating environment, and whose personal
growth has therefore been able to take place, though late. In the context of good-enough holding and handling the new individual now comes to realize some of his or her potential. Somehow we have silently communicated reliability and the patient has responded with the growth that might have taken place in the very early stages in the context of human care. (p. 79)

Winnicott's (1971/2005) therapeutic facilitation of the change process reflected his conceptualization of the mother-infant dyad. He (1971/2005) viewed psychotherapy as "the overlap of two areas of playing, that of the patient and that of the therapist," (p. 51) in much the same way that "play [was] a potential space between the mother and the baby" (p. 64) which fostered the individual's discovery of self. He (1971/2005) believed that "playing impl[ied] trust" (p. 69) which reflected the individual's movement from a "state of omnipotence," (p. 69) to "being alone in the presence of someone," (p. 64) to having one's sense of self reflected back, (p. 64) to gradually receiving "ideas that are not [his] own" (p. 64). These phases in the process of play for Winnicott (1971/2005) was the vehicle for creativity and the foundation for "feeling real" (p. 158) and "hav[ing] a self into which to retreat for relaxation" (p. 158).

Winnicott (1971/2005) believed that the patient needed a "new experience in a specialized setting:" "the experience …of a non-purposive state," a state he also called "formlessness" (p. 74). This non-purposive state of formlessness resembled the omnipotent state which was vital for the self to rest within. Winnicott (1971/2005) elaborates:

In these highly specialized conditions the individual can come together and exist as a unit, not as a defense against anxiety but as an expression of I AM, I am alive, I am myself. From this position everything is creative. (pp. 75-76)

Winnicott (1971/2005) paralleled this non-purposive state with the creativity of play, a state where the individual "must be allowed to communicate a succession of ideas, thoughts, impulses, sensations that are not linked except in some way that is neurological or physiological and perhaps beyond detection" (p. 74). Using his frame of the phases of the play process, Winnicott (1971/2005) was cognizant of his use of reflections and titrated interpretations to facilitate the
emergence of the true self. He emphasized that "the therapist must have a 'capacity…to contain the conflicts of the patient, that is to say to contain them and to wait for their resolution in the patient instead of anxiously looking round for a cure" (Phillips, 1988, p. 12, citing Winnicott, 1971). Winnicott (1971/2005) emphasized that "the significant moment is that at which the child surprises himself or herself. It is not the moment of my clever interpretation that is significant" (p. 68).

**Understanding the Phenomenon of Buddhist Mindfulness through a Winnicottian Lens**

**The Buddha's going-on-being.** Central to mindfulness from a Buddhist perspective is the Buddha whose teachings illuminate the way out of suffering to awakening and happiness. Looking more closely at how the Buddha arrived at the notion of meditation, the seat of mindfulness, contains relevancy for Winnicott's theory of development. Although Winnicott did not use the term *awakening* he believed one's innate inner tendencies would flourish if nurtured by good-enough mothering and a good-enough facilitative environment.

A piece of the Buddha's story that "is known but not often spoken of" is that the Buddha's mother, Queen Maya, died when he was 7 days old (Epstein, 2013, p. 17). The Buddha's mother's sister was also married to his father and "stepped in and took care of him like her own" (Epstein, 2013, p. 17). This suggests that although the Buddha received loving and nurturing continuity of care, he did experience a discontinuity of connection on a preverbal level with the relationship that was formed with his biological mother during pregnancy and in his first week of life. Winnicott (Applegate et al., 1995) notes that "the holding begins in utero where a continuity of being in the fetus takes root in the rhythmic physiological characteristics of a healthy prenatal state" (p. 33). This preverbal loss which, carries some degree of environmental failure is stored, in his implicit memory (Epstein, 2013). Winnicott (1987/2002) states that there are "varying
degrees" of damage when "babies have experienced environmental failure" (p. 68). He (1987/2002) elaborates:

At best the baby growing into a child and an adult carries round a buried memory of a disaster that happened to the self, and much time and energy are spent in organizing life so that such pain may not be experienced again. (p. 68)

The name chosen for the Buddha was Siddhartha, which in Pali, means "he who achieves his aim" (Guatama Buddha, n.d. p. 7). This was a prescient name for the Buddha-to-be. Legend has it that when the Buddha was born, a wise seer visited his father, King Suddhodana, to announce that the infant would either become a great king or a great holy man (Guatama Buddha, n.d.). The Buddha's father, desiring that his son become a great king, shielded the Buddha from life outside of the palace (Guatama Buddha, n.d.); however, at the age of twenty-nine the Buddha "left his wife, newborn son, palace, and kingdom" to "pursue the available spiritual practices of his culture" (Epstein, 2008, p. 65).

Upon leaving the palace, he encountered the human suffering of aging, sickness, and death which "roused" him from "his complacency" and "started him on his quest for awakening" (Epstein, 1995, p. xv). He (Epstein, 2008) spent the next 6 years as an ascetic, "push[ing] the limit of his own endurance," (p. 65) starving himself, and "beating himself into submission, as the ascetics of his time counseled" (p. 66). Then a thought occurred to him: "Might there be another way to enlightenment?" (Epstein, 2008, p. 66). In this pause, a memory from when he was a young boy emerged (Epstein, 2008). He recalled a time of joy sitting under the shade of a rose-apple tree watching his father work (Epstein, 2008). In this moment of recall, he experienced a "concentrated and focused state that was blissful and refreshing" (Guatama Buddha, p. 10). This particular memory suggests the "good-enough ego coverage" (Epstein, 1998, p. 17) the Buddha's father provided that enabled him to develop the capacity to be alone and rest in his natural state of being. Epstein (2008) beautifully describes "the safety net" (p. 18)
of the Buddha's father's presence: "Under the canopy of the protective arbor and his father's benevolent but noninterfering presence, the young child experienced a taste of the joy that is born out of relaxed contemplation, the pleasure that was his being" (p. 67). The Buddha's capacity to slip into this deeper state of relaxation also suggests the presence of the holding environment when he was very young.

It was through the remembrance of this taste of joy that the Buddha became aware that the path to awakening was this meditative state and not the ascetic life he had been living (Guatama Buddha, n.d.). The Buddha's experience of attunement with himself in the quiet holding of contemplation reflects the phenomena that Winnicott describes occurs in the going-on-being state (Applegate & Bonovitz, 1995; Epstein, 2008; Tuber, 2008). Winnicott states:

> When alone in the sense that I am using this term, and only when alone, the infant is able to do the equivalent of what in an adult would be called relaxing. The infant is able to become unintegrated, to flounder, to be in a state in which there is no orientation, to be able to exist for a time without being either a reactor to an external impingement or an active person with a direction of interest or movement. The stage is set for an id impulse. In the course of time there arrives a sensation or an impulse. In this setting the sensation or impulse will feel real and be truly a personal experience. (Tuber, 2008, p. 75, citing Winnicott, 1958, p. 34)

Thus, by turning inward and resting in safety the Buddha tapped into an inner impulse, which led him home to his true self. His fellow ascetics disapproved of his turning away from this lifestyle toward a contemplative life (Epstein, 2008). In fact, in the midst of the joyful memory, the Buddha wondered if it was alright to go towards pleasure; he had denounced the life of luxury in which he had been reared (Epstein, 2013). In his pondering, he recognized that this joy was wholesome and he could embrace it (Epstein, 2013). With joy in his heart and trust in his true nature, he embarked on a path guided by the home base of authenticity and creativity that was to change the course of his life, and the lives of many followers to come.
The Dharma, Buddha nature, true self, and holding environment. Mindfulness from a Buddhist perspective is grounded in the teachings of the Buddha, referred to as the Dharma, which are "pragmatic and systematic "teachings and practices" illuminating the path to understanding the nature of body and mind in order to "bring about happiness" and liberation from suffering (Kornfield, 2008, p. 7). The "very essence of the Buddha's awakening" (Goldstein, 2013, p. 287) is his teachings on the Four Noble Truths. The teachings of the Four Noble Truths contain the assertion that suffering exists; however there is a path out of this suffering through the engagement of the wise and compassionate investigation of a disciplined meditation practice (Goldstein, 2002).

In like fashion, Winnicott (1988) asserts:

But the fact is that life itself is difficult, and psychology concerns itself with the inherent problems of individual development and of the socialization process; moreover in childhood psychology we must meet the struggles that we ourselves have been through, though for the most part we have forgotten these struggles or have never been conscious of them. (p. 10)

Winnicott's words speak to the path of psychology as the gateway to awakening. In much the same vein, His Holiness Dalai Lama (1995) reinforces Winnicott's sentiment:

Recently, psychotherapists with their background in science and medicine, have begun to explore the possibilities of employing Buddhist techniques in a therapeutic context. I feel that is entirely consistent with the aim of overcoming suffering and improving the welfare of all sentient beings. (p. xiii)

Epstein (1995) fortifies the connection between the teachings of the Buddha and the psychological process: "the Buddha may well have been the original psychoanalyst, or, at least, the first to use the mode of analytic inquiry that Freud was later to codify and develop" (p. 9).

The fruits of awakening. The Dalai Lama states, "At the heart of the Buddha's teachings lies the idea that the potential for awakening and perfection is present in every human being and that it is a matter of personal effort to realize that potential" (Goldstein, 2002, p. ix). This
potential for awakening is our "Buddha nature," "a recognition of our innate nobility (goodness) and the freedom of heart that is available wherever we are" (Kornfield, 2008, p. 20). One of the core teachings of the Dharma is taking refuge in the Buddha which Brach (2012b) explains as "drawing inspiration" from the Buddha's "courageous investigation of reality and his awakening to a timeless and compassionate presence [which] brings confidence that this same potential lies within each of us" (p. 54). The descriptions of the potential for awakening in the Buddhist literature are addressing adults and specifically revolve around the Buddha's teachings.

Winnicott (2002) also believed in the potential for awakening in every individual—he referred to this as the inherited growth potential that "fiercely drives [each individual] on in a growth process" (p. 18). Yet, for Winnicott, this potential was not a result of personal effort; rather it was realized through the provisions of a loving holding environment from infancy. The freedom of heart that Kornfield describes would be seen by Winnicott as evidence of authenticity and living from one's true self. For Winnicott (1971/2005), one's true self evolved out of the state of going-on-being from which vitality, creativity, and a life worth living sprung forth.

**Consciousness, affect tolerance, and the holding environment.** Consciousness, as elaborated in the phenomenon chapter, contains the aspect of sky-like nature and particle-like nature (Kornfield, 2008). Kornfield (2008) characterizes the sky-like nature as the vast "open space of awareness" (p. 47) and he characterizes the particle-like nature as transient states of feelings and experiences that pass through this vast open space of awareness. Mindfulness training cultivates the capacity to hold the transient states within this larger sky-like open space of awareness (Kornfield, 2008).

A Winnicottian lens resonates with these two features of consciousness. Winnicott would view the sky-like nature of awareness as an attribute of good-enough holding by the
mother, and later, by the ego supportive environment of a clinical setting. Kornfield (2008) emphasizes that by learning to rest in the open space of awareness, "we become unafraid of the changing conditions of life" (p. 42). Mindfulness meditation builds the tolerance to contain the full range of affects and impulses, the particle-like aspect of awareness. Epstein (1995) elaborates: "Mindfulness confers upon us the capacity to relate to emotional life in an open, balanced, accepting, and tolerant way, while freeing us to act with compassion, rather than on impulse, in response" (p. xxii). Cultivating this presence for ourselves to be with whatever presents with loving-kindness builds our capacity to turn towards and hold ever-greater ranges of mental, physical, emotional and experiential states, the Four Foundations of Mindfulness.

Winnicott considered the capacity to be present and tolerate the fullness of experience to be rooted in the early holding environment. Winnicott describes how an infant can fully rest when the provisions for holding are good-enough. Winnicott (1988) states:

Nevertheless it can be said that where the holding of a baby is perfect (and it often is, since mothers know just how to do it) then the baby can get confidence even in the live relationship, and can unintegrate while being held. This is the richest type of experience. Often, however, the holding is variable or even spoiled by anxiety (mother's over-control against dropping) or by anxiousness (mother's trembling, hot skin, over-acting heart, etc.) in which case the baby cannot afford to relax. Relaxation then only comes with exhaustion. In such a case the cradle or cot offers a welcome alternative. Provision has to be made, however, for baby's return from relaxation (re-integration). (p 119)

Thus, Winnicott would see the quality of holding as a pre-requisite to cultivating this capacity to tolerate the transient states that stream through our daily lives. This tolerance to be with the fullness of one's experience stems from the provisions of the good-enough mother's capacity to contain and tolerate the fullness of her own and subsequently, her child's experiences. Winnicott, "like other object relations theorists" "believed that, in countless interactions with the child, the caregiver's functions are gradually internalized and become the building blocks for intrapsychic structure" (Applegate & Bonovitz, 1995, p. 30). Applegate & Bonovitz (1995) elaborates,
"Through the medium of internalization, the affective valence of physical holding is converted into the manner in which the child 'holds' his or her inner life" (p. 35). Consequently, with repeated environmental failures and the lack of a good-enough facilitating environment, this emotional valence can present challenges to the practice of mindfulness meditation. If the individual's sense of self is vulnerable, lacking the safety and security from good-enough holding, a Winnicottian lens would temper the building of this tolerance through mindfulness meditation within an ego supportive environment.

**Four foundations of mindfulness, formlessness, Winnicottian integration.** The four foundations of mindfulness, elaborated in the phenomenon chapter, contain the Buddha's instructions for engaging in a meditation practice. Long-time practitioners of Buddhist mindfulness emphasize that a direct experience of a dedicated meditation practice is fundamental to knowing mindfulness (Germer, 2013; Kabat-Zinn, 2013a; 2013b). The fruits of meditation practice produce an experience of "the living foundation" that is "maximally healing, transformative, compassionate, and wise" (Kabat-Zinn, 2013b, p. 284). Hahn (1975) likens the fruits of meditation to a magician who "by some miraculous power lets forth a cry which reassembles whole every part of his body" and "restore[s] it to wholeness so that we can live each minute of life" (p. 14).

A Winnicottian lens recognizes this restoration to wholeness as integration which he believed was the outcome of a good-enough facilitating environment. Winnicott (1988) conceptualized integration as "promoted by the environmental care" and the infant's "internal factors" (p. 117) which facilitated the infant's progression from a state of unintegration "where there is no awareness," (p. 116) to integration where "there is a self to be aware" (p. 116). Winnicott (1988) adds: "In psychology it must be said that the infant falls to pieces unless held
together, and physical care is psychological care at these stages" (p. 116). Winnicott (1971/2005) valued direct experience and believed that integration was facilitated through the non-purposive state of formlessness which was akin to the state of going-on-being and the specialized setting crucial for the facilitation of the true self to emerge in psychotherapy. It was in this state of formlessness that the Buddha recaptured the joy of his childhood memory and surprised himself with a new direction for enlightenment which was to become the roots of his core teaching, the Four Foundations of Mindfulness (Goldstein, 2002). From a Winnicottian perspective, the Buddha's access to this non-purposive state was enabled by his internalization of a nurturing and loving holding environment. Thus, a Winnicottian lens would characterize the contemplative state of meditation as a state of formlessness which fosters self-attunement, creativity, and integration.

A Winnicottian perspective on taking refuge in the sangha. Taking refuge in the Sangha is one of the underpinnings of the Buddha's teachings. Sangha, which is a joining together within a community for support, connection, and teachings, also includes the importance of having a teacher to impart the wisdom of the Buddha's teachings (Kornfield, 2008, p. 289). Traditionally, individuals desiring to learn Buddhist meditation techniques seek out a teacher and become part of a dharma community or sangha. Meditation retreats of varying lengths, from one day to several months to years, always include ongoing consultations with a meditation teacher. From a Winnicottian perspective, a Sangha also includes the presence of the clinician who provides ego support and guidance with titrating the meditative experience within the facilitating holding environment of a psychotherapeutic setting.

The relevancy of the Winnicottian approach to mindfulness. Mindfulness can be integrated within a psychotherapy setting along a continuum "from the implicit influence of [the]
therapists' own mindful awareness of what happens in treatment to explicitly teaching mindfulness exercises to patients" (Fulton, 2013, p. 59). Regardless of whether a clinician chooses to integrate mindfulness implicitly or explicitly, Germer's (2013) recommendation for a clinician to engage in a personal meditation practice is at the heart of understanding and knowing the nature of mindfulness. Meditation appears to be dose-related; those individuals who have been meditating for a greater amount of time describe mindfulness as "a way of being" (Kabat-Zinn, 2013b, p. 284). Also, embedded within a clinician's implicit mindfulness stance is a grounding in the Buddha's teachings. Kabat-Zinn (2013b) explains his expectations for the MBSR therapists and teachers:

In fact, it is virtually essential and indispensible for teachers of MBSR and other mindfulness-based interventions. Yet little or none of it can be brought into the classroom except in essence. And if the essence is absent, then whatever one is doing or thinks one is doing, it is certainly not mindfulness-based in the way we understand the term. (p. 299)

Descriptions of Winnicott's way of being in psychotherapy endorse the importance of an implicit application of mindfulness, the clinician's mindful stance, as well as demonstrate Winnicott's understanding of the importance of awareness and attention, key components of the phenomenon of Buddhist mindfulness meditation. Applegate et al. (1995) states, "Winnicott brought a powerful personal presence to the clinical encounter; many who came in contact with him spoke of his 'poised somatic stillness'" (p. 20, citing Khan, 1975). Winnicott (BBC, 2013) was described as "paying attention to every nuance in his interactions with mothers and their children. Even when he was asked the same question repeatedly, he would answer as if anew, allowing space for something new and surprising to come forth." In my reading his case description of a consult with a mother and her child, Winnicott employed both a wide and focused lens. He was fully attentive as he listened to the mother; yet he was also keenly observant of the child's playing, noting minute details (Winnicott, 1971/2005). Winnicott
demonstrated the "evenly hovering attention" that Freud advised analysts to practice (Morgan, Morgan, & Germer, 2013, p. 77). Winnicott (Tuber, 2008) described how he works in psychotherapy: "I personally do my work very much from the body ego. Ideas and feelings come to mind, but these are well-examined and sifted before an interpretation is made" (pp. 219-220, citing Winnicott, 1971).

His wife, Claire Winnicott, (1989) describes Winnicott's approach to psychotherapy:

In his clinical work D.W.W. made it his aim to enter into every situation undefended by his knowledge, so that he could be as exposed as possible to the impact of the situation itself. From his point of view this was the only way in which discovery and growth were possible, both for himself and for his patients. This approach was more than a stance; it was an essential discipline, and it added a dimension to his life as vital to him as fresh air. (p. 2)

Winnicott's essential discipline of how he met every clinical situation exemplifies the essence of Zen Mind, Beginner's Mind (Suzuki, 2011). Suzuki (2011) states, "In the beginner's mind there are many possibilities, but in the expert's there are few" (p. 1). Winnicott's moment-to-moment presence embodies the uncertainty and ambiguity that is illuminated in the Buddha's teachings and is integral to a clinician's capacity to hold uncertainty within the psychotherapy setting. Applegate et al. (1995) capture this quality of Winnicott's moment-to-moment presence: Winnicott "insist[ed] on co-constructing each therapy anew according to its unfolding relationship dynamics" (p. 20).

**Theory, creativity, and paradox.** There is a paradox to Winnicott's disciplined clinical approach that parallels the presence of paradox within the Buddha's teachings. According to Applegate et al. (1995), accounts of Winnicott's work through his writings and illustrated by several patients, "reveal[s] a clinician well grounded in classical theory who was free to experiment and 'play' with new ideas and intuitively derived interventions" (p. 20). Grolnick (1990) adds:
He lived out his belief that originality must spring from a steady base of tradition and organization. Winnicott spent his life trying to show his readers, his students, and his patients how being traditional and straight does not preclude being startlingly novel. (pp. 10-11)

Thus, spontaneity, authenticity, and creativity spring from being well-grounded in theory.

Grolnick (1990) states:

It should be said that by using Winnicottian concepts one cannot show a therapist how to say it and when to say it. But actually Winnicott was a therapist's therapist. Reading him helps free up one's natural therapeutic verve that too often is squelched by an all too rigid cleaving to arbitrary rules. (p. 10)

Paradox is embedded within the Buddha's teachings and the diverse factors affecting the complexity of defining mindfulness as elaborated in the phenomenon chapter. Taking refuge in the Buddha's teachings, the Dharma, encompasses "working with our inner life through meditation practice; dedicating ourselves to wise, ethical behavior, and understanding the teachings or truths that guide us on the spiritual path" (Brach, 2012b, p. 47). The Buddha did not want to be copied; his hope was in imparting his teachings not as dogma, but as an invitation to engage in a personal and wise investigation (Goldstein, 2002). Kabat-Zinn (2013b) addresses how a MBSR practitioner is holding the dharma in the background while being with the moment-to-moment unfolding of the client's experience. Kabat-Zinn (2013b) states:

All maps are laid aside as an act of love and wisdom, meaning that we no longer have any attachment to what they portray, and are thus able to exemplify and embody the essence of the territory of being human in all of its dimensionalities, while transmitting to others through our direct seeing and honoring of their intrinsic Buddha nature that there is indeed, nowhere to go, nothing to do, and nothing to attain...the gateway to any authentic attainment. This is all intrinsic to any mindfulness-based intervention, what we might call its marrow. (pp. 299-300)

Kornfield (2010) brings attention to theses paradoxes:

The point of representing this paradox is to show that there are many valid approaches to the same fundamental truths. If the reader gains the understanding that the Dharma cannot be found in the contrasting forms and techniques of Buddhism but only in the underlying experience, then he is really ready to practice. (p. 19)
Winnicott understood the realities of paradox in life and thus would endorse the paradoxes inherent within the Dharma. In Winnicott's (1971/2005) own words: "My contribution is to ask for a paradox to be accepted and tolerated and respected, and for it not to be resolved" (p. xvi).

**Summary.** Winnicott's understanding of the phenomenon of Buddhist mindfulness would embrace mindfulness meditation as a non-purposive, formless experience, the kind of specialized setting he believed was the new experience needed for the true self to emerge. Meditation thus potentiates the state of going-on-being, an experience of attunement that can hold the fullness of one's experience and yields the fruits of awakening the creative impulse, restoration, and integration. This specialized setting of meditation reflects a holding environment fortified by the ego support of the clinician within a psychotherapeutic setting (the sangha), nourished by the clinician's mindful presence and belief in the Buddha nature of the client, grounded by a foundation of theory (dharma) and tolerance of uncertainty out of which authenticity and novelty can unfold. Claire Winnicott's (1989) description of D.W.Winnicott's capacity to feel at home anywhere resonates with Kornfield's (2008) description of the potential for awakening which is our "Buddha nature," our inherent goodness (p. 20). Kornfield (2008) explains that our awakening to our Buddha nature allows us "the freedom of heart that is available wherever we are" (p. 20).

The next chapter presents relevant concepts from neuroscience with an examination of how mindfulness is understood through this lens.
CHAPTER V

The Neuroscience of Mindfulness

This chapter will explore the neuroscience of meditation. First an overview of the relational and embodied brain will be presented. Then an overview of neuroplasticity will be presented followed by a broad stroke presentation of the anatomical structure and function of the brain. The chapter will conclude with the confluence of neuroscience and the phenomenon of Buddhist Mindfulness Meditation.

Overview of the Brain

Siegel (2012b) emphasizes that the brain is not just an anatomical organ housed in the skull, but that it is also a social organ whose neural connections are shaped by human connection and experience. Siegel (2012b) explains that the brain is activated and strengthened through experience and it is the infant's interpersonal relationship with his caregivers that function as the "primary source of the experience that shapes how genes express themselves within the brain" (Siegel, 2012b, p. 23). Experience continues to "shape the activity of the brain and the strength of neuronal connections throughout life" (Siegel, 2012b, p. 22); however the quality of experiences in the early years may have the most "profound effects on the integrative structures of the brain, which are responsible for basic regulatory capacities and enable the mind to respond later to stress" (p. 22). These regulatory capacities in the early years are contingent on the caregiver's capacity for attuned communication (Siegel, 2012b). Thus, Siegel (2012b) refers to the brain and mind as "relational" (p. 5).
In addition to the brain being shaped by connections and external experiences, the brain also changes in response to internal mental activity (Siegel 2012b, Davidson & Begley, 2012). Siegel (2012b) emphasizes that the mind is "not just "an outcome of the firing of neurons within the brain" (p. 5); rather there is a bi-directional influence between the mind and the brain. This bi-directionality is referred to as the "embodied mind" (Siegel, 2012b, Davidson & Begley, 2012). Davidson (Davidson & Begley, 2012) elaborates on the embodied nature of the mind:

"The mind is embodied in the sense that it exists within the body—specifically, in the three pounds of tofulike tissue we call the brain—and engages in bidirectional communication with it, so that the mind influences the body, and the state of the body influences the mind. Emotions, too, are embodied, and given their power to affect physiology outside the skull they are arguably the most embodied form of mental activity. (p. 136)

Studies with musicians and athletes have shown "alterations in brain growth as a result of [the] mental activity" of mental imagery (Siegel, 2012b, pp. 12-13). Neuropsychiatrist Jeffrey Schwartz has demonstrated that patients with Obsessive Compulsive Disorder (OCD) were able to reduce the worry circuit in their brain that is implicated for OCD using Buddhist mindfulness techniques (Davidson & Begley, 2012). These patients with OCD were able to "alter patterns of brain activity" by "thinking about their thoughts in a new way (Davidson & Begley, 2012, p. 173). These findings with the musicians, athletes, and patients with OCD "reveal that mental activity can get the brain to fire off in specific patterns—and ultimately change the brain's structure" (Siegel, 2010, p. 12, citing Doidge, 2007).

The brain's responsiveness to change "in response to messages generated internally—in other words, to our thoughts and intentions" (Davidson & Begley, 2012, p. 9) is the basis for the nascent field of "contemplative neuroscience" (Davidson & Begley, 2012, p. 196), the application of neuroscience to the contemplative practices of meditation. The property of the
brain that holds the potential to affect changes lies in the brain's malleability and is referred to as "neuroplasticity" (Doidge, 2007, p. xix). Let's take a closer look at neuroplasticity before peering into the anatomical structure of the brain.

Neuroplasticity

The brain (Siegel, 2011) "has one hundred billion neurons" (p. 7) with "an average of ten thousand connections to other neurons" (p. 7). Siegel (2011) explains, "When neurons fire together, they grow new connections between them. Over time, the connections that result from firing lead to 'rewiring' in the brain" (p. 6). Doidge (2007) adds, "When we say that neurons 'rewire' themselves, we mean that alterations occur at the synapse, strengthening and increasing, or weakening and decreasing, the number of connections between neurons" (p. 54). The rewiring of the brain reflects recent findings in neuroscience that challenge the belief that the "adult mammalian brain is fixed in two respects: no new neurons are born in it, and the functions of the structures that make it up are immutable" (Begley, 2007). These recent neuroscience findings reveal that in addition to "creat[ing] and strengthen[ing] synaptic connections," we can also "stimulate new neurons to grow"; and we can increase neuronal conduction speed and recovery time by increasing "the myelin sheath that wraps around the neuron's axons" (Siegel, 2010a, p. 218). These processes of synaptogenesis, neurogenesis, and myelinogenesis are the three components involved in neuroplasticity (Sigel, 2010a, p. 218).

The notion of neuroplasticity came about "in the late 1960s or early 1970s" when "a band of brilliant scientists, at the frontiers of brain science" "made a series of unexpected discoveries" (Doidge, 2007, p. xviii). Doidge (2007) elaborates on the discovery of neuroplasticity:

They showed that the brain changed its very structure with each different activity it performed, perfecting its circuits so it was better suited to the task at hand. If certain 'parts' failed, then other parts could sometimes take over. The machine metaphor, of the brain as an organ with specialized parts, could not fully account
for the changes the scientists were seeing. They began to call this fundamental brain property 'neuroplasticity.' (pp. xviii-xix)

Doidge (2007) provides a historical perspective of the old neuroscientific paradigm that the brain was hardwired and functioned like a machine:

The belief that the brain could not change had three major sources: the fact that brain-damaged patients could so rarely make full recoveries; our inability to observe the living brain's microscopic activities; and the idea—dating back to the beginnings of modern science—that the brain is like a glorious machine. (p. xviii)

Doidge (2007) reflects on the paradigm shift away from hardwiring to neuroplasticity:

The idea that the brain can change its own structure and function through thought and activity is, I believe, the most important alteration in our view of the brain since we first sketched out its basic anatomy and the workings of its basic component, the neuron. (pp. xix-xx)

Doidge (2007) asserts, "One of these scientists even showed that thinking, learning, and acting can turn our genes on or off, thus shaping our brain anatomy and our behavior—surely one of the most extraordinary discoveries of the twentieth century" (p. xix).

According to Doidge (2007), there are three concepts integral to neuroplasticity: "the notion of critical periods" (p. 52), "competitive plasticity" (p. 59), and the "plastic paradox" (p. xx). The notion of critical periods refers to the discovery in biology "in the second half of the twentieth century," "that each neural system had a different critical period, or window of time, during which it was especially plastic and sensitive to the environment, and during which it had rapid, formative growth" (Doidge, 2007, p. 52). Doidge (2007) explains, "What is remarkable about the cortex in the critical period is that it is so plastic that its structure can be changed just by exposing it to new stimuli" (p. 78); whereas we "really have to work to pay attention" (p. 78) when we are learning after this critical period.

The notion of competitive plasticity refers to the "competition for cortical real estate, and that brain resources are allocated according to the principle of use it or lose it" (Doidge, 2007, p. xx).
Doidge (2007) explains that if two languages are learned during the critical period for language development, "both get a foothold" and brain scans show that "the two languages share a single large map" in the brain (p. 60). Doidge (2007) explains that competitive plasticity is at work when an individual tries to learn a new language outside of the critical period, making it difficult to learn because "the more we [have] use[d] our native language, "the more it comes to dominate our linguistic map space" (p. 60). Doidge (2007) asserts that "competitive plasticity also explains why our bad habits are so difficult to break" (p. 60).

The understanding that the plasticity of adult brains could be shaped by experience comes from the "pioneering experiments" "in the 1980s" by Merzenich (Doidge, 2007). Merzenich (Doidge, 2007) conducted experiments using monkeys that were later tested on human beings, by other scientists, demonstrating "that neuronal structure can be altered by experience" (p. 63). Merzenich (Doidge, 2007) illustrated that "the difference between critical-period plasticity and adult plasticity is that in the critical period the brain maps can be changed just by being exposed to the world because the 'learning machinery is continuously on'" (pp. 78-79).

A critical finding by Merzenich (Doidge, 2007) was that "paying close attention is essential to long-term plastic change" (p. 68). Doidge (2007) explains, "When the animals performed tasks automatically, without paying attention, they changed their brain maps, but the changes did not last;" "lasting changes occurred only when his monkeys paid close attention" (p. 68). This finding which is particularly relevant for the phenomenon of Buddhist Mindfulness, will be highlighted in the Neuroscience and Buddhism section.

The third concept that pertains to neuroplasticity is the plastic paradox. Doidge (2007) cautions that with the promise of the positive way the brain can change, there exists a "plastic paradox" (p. xx), "render[ing] our brains not only more resourceful but also more vulnerable to
outside influences" (p. xx) and to the production of more rigid behaviors and habits (p. 242).

Doidge (2007) explains:

All people start out with plastic potential. Some of us develop into increasingly flexible children and stay that way through our adult lives. For others of us, the spontaneity, creativity, and unpredictability of childhood gives way to a routinized existence that repeats the same behavior and turns us into rigid caricatures of ourselves. Anything that involves unvaried repetition—our careers, cultural activities, skills, and neuroses—can lead to rigidity. Indeed, it is because we have a neuroplastic brain that we can develop these rigid behaviors in the first place. (p. 242)

Cozolino (2006) elaborates on the positive and negative effects of the brain's adaptability or plasticity as related to our early relational experiences:

The good news is that if unexpected challenges emerge, our brains have a greater chance to adapt and survive. When good-enough parenting combines with good-enough genetic programming, our brains are shaped in ways that benefit us throughout life. And the bad news? We are just as capable of adapting to unhealthy environments and pathological caretakers. The resulting adaptations may help us survive a traumatic childhood but impede health development later in life. (pp. 6-7)

To illustrate neuroplasticity, Doidge (2007) uses a metaphor from Pascual-Leone, whose studies demonstrated that "we can change our brain anatomy simply by using our imaginations," (p. 196):

Neuroplasticity is like pliable snow on a hill. When we go down the hill on a sled, we can be flexible because we have the option of taking different paths through the soft snow each time. But should we choose the same path a second or third time, tracks will start to develop, and soon we will tend to get stuck in a rut—our route will now be quite rigid, as neural circuits, once established, tend to become self-sustaining. (p. 242)

These self-sustaining behaviors become habits and "mental rigidity" (Doidge, 2007, p. 243).

Doidge (2007) recalls that Freud, who was a neuroscientist and neurologist, "used the term 'mental plasticity' to describe people's capacity for change and recognized that people's overall ability to change seemed to vary" (p. 242). Doidge (2007) explains that Freud's observation of what he called "a depletion of plasticity" (p. 242) was "attributed" to "force of habit" (p. 242).
Doidge (2007) observes "how neuroses are prone to being entrenched by force of habit because they involve repeating patterns of which we are not conscious, making them almost impossible to interrupt and redirect without special techniques" (p. 243). As noted in the previous chapter, Winnicott (1971/2005) believed a specialized setting which he called a non-purposive state or a state of formlessness was necessary for unconscious material to become conscious, thus paving the way for sustainable change. Doidge (2007) reinforces the belief that psychotherapy has the potential as a vehicle for change.

Doidge's (2007) mentor Erik Kandel won the Noble Prize in 2000 for "demonstrat[ing] that when we form long-term memories, neurons change their anatomical shape and increase the number of synaptic connections they have to other neurons" (p. 218). Additionally, Doidge (2007) states, "Kandel's work shows that when we learn our minds also affect which genes in our neurons are transcribed" (p. 221). Doidge (2007) asserts that psychotherapy is an intervention characterized by special techniques that raises self-awareness in a safe environment; thus facilitating the change process. Doidge (2007) explains how Kandel understood the neural mechanism for the change process of psychotherapy:

Kandel argues that when psychotherapy changes people, 'it presumably does so through learning, by producing changes in gene expression that alter the strength of synaptic connections, and structural changes that alter the anatomical pattern of interconnections between nerve cells of the brain. (p. 221)

Doidge (2007) adds, "Psychiatrist Dr. Susan Vaughan has argued that the talking cure works by 'talking to neurons,' and that an effective psychotherapist or psychoanalyst is a 'microsurgeon of the mind' who helps patients make needed alterations in neuronal networks" (p. 221).

Returning to the metaphor that plasticity is like pliable snow on a hill and a depletion of plasticity leads to mental rigidity and the force of habit (Doidge, 2007), is it possible to have positive effects of plasticity through the repetition of positive behaviors and mental states?
Siegel (2011) asserts that the potential for a positive adaptation through the rewiring process is possible through the development of relationships, psychotherapy, and indeed, mindfulness awareness practices. The section addressing the phenomenon of Buddhist mindfulness meditation will explore this possibility. The hopefulness of neuroplasticity emanates through Siegel's (2011) words:

This is incredibly exciting news. It means that we aren't held captive for the rest of our lives by the way our brain works at this moment—we can actually rewire it so that we can be healthier and happier. (p. 7)

The Anatomical Brain: PNS and CNS

There are two basic divisions of the nervous system: the peripheral nervous system (PNS) and the central nervous system (CNS) (Cozolino, 2006). The autonomic nervous system and somatic nervous system are part of the PNS; while the brain is part of the CNS along with the spinal cord (Cozolino, 2006). The two branches of the autonomic nervous system (ANS) are the sympathetic and parasympathetic nervous system. Both the sympathetic and parasympathetic branches mediate our fight-flight-freeze-collapse responses (Porges, 2011). The sympathetic branch (Siegel, 2012b) increases "heart rate, respiration, sweating, and states of alertness" (p. 311); whereas the parasympathetic branch "mediates such responses as decreases in heart rate, respiration, and states of alertness" (p. 311). Porges (2011; 2012) states that survival and feeling safe dictate the activation of the fight-flight-freeze-collapse responses which are survival defense responses. Porges (2011) emphasizes that our detection of safety happens without our awareness producing a physiological response through a process he calls "interoception" (p. 11). Porges (2011) defines interoception as "the ability to sense internal states and bodily processes—through interoceptors located on the heart, stomach, liver, and other organs inside the body cavity—constitutes a sixth sense that is crucial to the infant's survival" (p. 77). Porges (2012) points out that "social engagement," which is an understanding of how relationships, especially
the infant's primary relationship with his parents, is the primary regulator of safety and indeed is our highest phylogenetic order of nervous system response to safety. Porges (2012) states:

It's only when we realize that our major role in life is making other people safe and calm, then the emergent properties of being a human being start coming out. That's when we see the benevolence, beauty, creativity, and boldness. (p. 3)

**Siegel's Hand Model of the Brain**

Siegel (2007; 2010b; 2011; 2012b) has created a hand model of the brain as an aid to simplify our understanding of its anatomical structure. Siegel (2007) explains:

If you take your hand and put your thumb in the middle and curl your fingers over the top, you'll have a readily accessible and fairly accurate model of the brain. This hand model is oriented such that your wrist represents the spinal cord in your back, the face of the person is in front of your fingernails, and the top of your hand is the top of the head. The brainstem is your palm, the limbic areas are your thumb (you'd have a left and right thumb, ideally), and your cortex is symbolized by your curved fingers. (pp. 33-34)

**Overview of the Structure and Function of the Brain**

The brainstem, which is the most primitive and evolutionarily old region of the brain, is positioned at the base of the brain (Siegel, 2007). The next region, the limbic system, "evolved when reptiles developed into mammals" (Siegel, 2007, p. 34) and lies between the brainstem and the cortex (Siegel, 2007). The cortex is the most evolutionary advanced region of the brain and is located on the outer layer of the brain (Siegel, 2007). The cortex is divided into four regions: the **occipital**, **parietal temporal**, and **frontal lobes** (Siegel, 2007). Looking again at the hand model, the occipital, parietal, and temporal lobes "extend [s] from your second knuckle (counting from the fingertips) to the back of your hand" which is at the back of your cortex (Siegel, 2010b, p. 20). Returning to your hand model, the frontal lobe "extends from your fingertips to the second knuckle" which is at the front of the cortex (Siegel, 2010b, p. 20).

Each of these regions or layers has their own distinct function and also work in concert with each other (Cozolino, 2006; Siegel 2010b; Applegate & Shapiro, 2005). Cozolino (2006)
suggests thinking about these three layers "as a brain within a brain within a brain" (p. 24) with "each successive layer devoting itself to increasingly complex functions and abilities" (p. 24).

**The brainstem.** "The brainstem is well developed at birth" (Siegel, 2007, p. 34) and "carries out important basic processes, such as regulating heart rate and respiration and states of alertness and sleepiness (Siegel, 2007, p. 34). In addition, the brainstem which receives information from the spinal cord and the body proper, plays a role in the fight-flight-freeze-collapse response (Siegel, 2012a).

**The limbic system.** Returning to the hand model, if you lift your fingers, the thumb or the limbic area is now in view. The evolution of our limbic system (Siegel, 2010b) from reptiles to small mammals "around two hundred million years ago" (p. 17) created the hardwiring for us to connect with each other. Child psychiatrist, Bruce Perry, (Perry & Szalavitz, 2010) captures the attachment and relational function of the limbic area when he says, "We are indeed born for love" (p. 5). It is this limbic region that drives our need to connect and has been crucial in our evolutionary survival (Cozolino, 2002, 2006; Siegel, 2012b). Siegel (2012a) adds that since "the limbic area forms only partially in the womb," "it is shaped by our early experiences with caregivers after birth" (p. 13-4).

The limbic area has "five important functions" (Siegel, 2012a). 1) It works with the brainstem "to create motivational drives; 2)" it "combines input from the body proper with signals from the brainstem" "to help create emotional states;" 3) it "apprais[es] the meaning of incoming perceptions of events;" 4) it encodes various forms of memory, "including the important implicit memory process of emotion, such as fear via the amygdala, and the explicit memory process involving the hippocampus;" and 5) it drives our need for affiliation and connection (Siegel, 2012a, p. 13-3).
The cortex. The cortex "enables us to mediate more complex processes, such as perception, planning, and attention" (Siegel, 2007, p 35). In addition to the cerebral cortex being divided into four lobes: the frontal, parietal, temporal, and occipital which can be visualized on Siegel's hand model, the cortex is also divided into two sides or hemispheres, sometimes referred to as the "right brain" and "left brain" (Siegel & Bryson, 2011, p. 15). These two hemispheres are anatomically separated by "a bundle of fibers that run along the center of the brain" called "the corpus callosum" (Siegel & Bryson, 2011, p.18). The corpus callosum functions to integrate both hemispheres and its these integrative fibers that are affected by early trauma (Siegel, 2012b). Each hemisphere has distinct functions or "their own distinct personalities, each side with a 'mind of its own'" (Siegel & Bryson, 2011, p. 15). The left brain (Siegel & Bryson, 2011) "is logical, literal, linguistic, and linear" (p. 15) while the right brain "is emotional, nonverbal, experiential, and autobiographical" (p. 16).

The right hemisphere of the cortex begins to develop during the last trimester of pregnancy (Schore, 2012) along with the development of the fetus' amygdala which "forms connections with the stress-regulating hypothalamic-pituitary-adrenal axis" (p. 97). Through this right hemispheric and amygdala development, the fetus becomes "sensitively responsive to the mother's physiological and emotional state" (Schore, 2012, p. 97). This has very strong implications for how access to prenatal care, arousal in the mother's emotional state, absence or disruptions of the mother's support system, and environmental stress (e.g., poverty, violence, racism) can be transmitted to the fetus and begins to lay down implicit tracks for affect arousal and an amygdala on heightened alert - all before the infant is born.

The left hemisphere and the growth of the hippocampus in the child's second year allows for the building of explicit memory and "the blossoming of comprehension and expression of
language" (Siegel, 2012b, p. 45). Siegel (2007) explains that since the cortex "is not highly developed at birth," it "is very open to being shaped by experience" (p. 35).

Let us return to the hand model and place your attention on the your fingers which represent the frontal region of the brain (Siegel, 2012b). Within this frontal region lies the prefrontal cortex with your middle two fingers representing the middle prefrontal cortex (Siegel, 2012b). See what you notice when you lift your fingers off the thumb and then replace them.

The prefrontal region (Siegel, 2012b) interfaces with the brainstem and spinal cord "involved in taking input from the body and the senses" (p. 166) and the cortex "involved in integrating information and creating complex thoughts and plans" (p. 166). Due to this directness of contact with each of these brain regions, this frontal region is considered to be highly integrative (Siegel, 2012b).

This prefrontal cortex region is especially relevant for emotional regulation and the findings from the neuroscience studies of meditation which will be highlighted in the section of Contemplative Neuroscience. Structures within the prefrontal cortex that are shown to be activated during meditation include "the anterior and posterior cingulate," "the orbitofrontal cortex," "the medial and ventral aspects of the prefrontal region, including the insula and the hippocampus" (Siegel, 2012a, p. 6-4). According to Siegel (2012a), there are "nine functions that arise from the integrative processing of the middle prefrontal area" (p. 6-4). These nine functions include: 1) "body regulation;" 2) "attuned communication;" 3) "emotional balance;" 4) "response flexibility;" 5) "fear modulation;" 6) "empathy;" 7) "insight;" 8) "moral awareness;" and 9) "intuition" (Siegel, 2010b, p. 26). Siegel (2012a) points out that the prefrontal cortex is also identified as part of the "outcome measures" for "secure-parent-child attachment" (pp. 6-4, 6-5). Siegel (2012a) also suggests from a "survey of a broad range of psychotherapists," "these
nine middle prefrontal functions are a comprehensive description of mental health" (p. 6-5).

Siegel (2012a) proposes that since "these nine middle frontal functions are a result of neural integration," "these findings suggest that mindfulness, secure attachment, mental health, and living a wise and kind life may each be the result of and also cultivate neural integration" (p. 6-5).

**Neuroscience and the Phenomenon of Buddhist Mindfulness Meditation**

As alluded to in the metaphor that *plasticity is like pliable snow on a hill*, repetitive behaviors can lead to the building of neural circuitry that produce mental rigidity, being stuck in a rut, and the formation of habits that are difficult to break (Doidge, 2007). Is it possible, however, to use the repetition of positive mental training through meditation practices to build neural circuitry that facilitates flexibility, attentional fluidity, compassion, and well-being? Is it also possible for long-term repetition of mental training through meditation to produce a trait versus a state in an individual (Siegel, 2010a)? A mindfulness state refers to the experience in the moment that has been intentionally created and is temporary; whereas a mindfulness trait is an enduring quality cultivated through the intentional repetition of skill training through meditation practice (Siegel, 2010a). The description of mindfulness as a *way of being* by long-time practitioners of Buddhist meditation, in the phenomenon chapter, reflect this enduring quality of mindfulness as a trait. Siegel (2010a) explains:

> The magic of states becoming traits is elucidated in the neuroplastic principle that repeated firing increases synaptic linkages and may lay down myelin as we become an expert in the skill of knowing the inner world. We can create this repeated firing, coupled with a close focus of attention and sense of emotional engagement, as we voluntarily engage in mindfulness practice on a regular basis. (p. 181)

Scientists, who have experienced the benefits of their own Buddhist mindfulness meditation practice and inspired by the findings of neuroplasticity, are forging new territory in the
investigation of whether meditation as a form of mental training can leave an enduring imprint on the brain (Davidson & Begley, 2012; Ricard, 2011). Neuroscientist Kosslyn (Hall, 2003) states:

The fact that the brain can learn, adapt, and molecularly re-sculpture itself on the basis of experience and training suggests that meditation may leave a biological residue in the brain—a residue that, with the increasing sophistication of new technology, might be captured and measured. (p. 2)

An enduring imprint on the brain implies a structural or functional change in the brain (Davidson & Begley, 2012; Lazar, 2013). Neuroscientist Lazar (2013), whose studies have focused on examining structural changes, explains, "It is generally believed that to have a long-lasting shift in behavior, there must be corresponding change in brain structure" (p. 80). Neuroscientist Davidson (Davidson & Begley, 2012), whose studies have primarily focused on functional changes, explains the functional brain changes:

But the brain can also change in response to messages generated internally—in other words, to our thoughts and intentions. These changes include altering the function of brain regions, expanding or contracting the amount of neural territory devoted to particular task, strengthening or weakening connections between different brain regions, increasing or decreasing the level of activity in specific brain circuits, and modulating the neurochemical messenger service that continuously courses through the brain. (pp. 9-10)

The brain imaging tools used to measure structure and function are electroencephalograms (EEGs) which "record" "changes in the brain's electrical activity" "with a very accurate time resolution" and functional magnetic resonance (fMRI) which "measures blood flow in various areas of the brain and provides an extremely precise localization of cerebral activity" (Ricard, 2011, p. 130). These brain imaging tools have enabled scientists such as Lazar and Davidson, as well as other researchers, to move the needle forward in showing evidence of both the structural and functional changes possible through the engagement of meditation (Hall, 2003; Davidson & Begley, 2012; Lazar, 2013).
Contextual Perspective

Meditation as a credible and acceptable focus of research was not the case decades earlier when Davidson (Davidson & Begley, 2012), as graduate student at Harvard in the 1970s, encountered the "disdain of mainstream psychology" (p. 183) for the study of meditation which at that time was way outside of mainstream culture. Davidson (Davidson & Begley, 2012) recalls the reaction he received from one of his professors after his first paper on meditation was published: "Richie, if you wish to have a successful career in science, this is not a very good way to begin" (p. 183). Davidson (Davidson & Begley, 2012) put his interest in studying meditation on hold for several decades while pursuing the study of emotions, all the while maintaining his daily meditation practice. Davidson (Davidson & Begley, 2012) recalls mustering up his courage in the early 1990s to write His Holiness The Dalai Lama, expressing his interest in studying the effects of meditation on the brain using adept meditators such as the monks living in the Himalayans. The Dalai Lama (2005; 2006; 2010), who has a keen interest in science, embraced Davidson's proposal, and Davidson along with his team of scientists arrived in Dharmasala, India, the home of the exiled Dalai Lama. This early effort was met with cultural challenges by monks who had been in silent retreat for months and years in stone huts in the Himalayans (Davidson & Begley, 2012). Unfamiliar with Western ways and technology, the ten monks who had volunteered based on the Dalai Lama's recommendation, each refused to participate when Davidson and his team of scientists trekked the treacherous Himalayans with all their heavy and bulky technological equipment (Davidson & Begley, 2012). The theme of the responses from these monks were:

If we wanted to learn the effects of meditation, why, we should just meditate ourselves; If we did succeed in measuring anything,….it would be completely unimportant in terms of understanding the effects of meditation; and Physical measurements were simply inadequate for discerning the effects of meditation on
the mind. Use EEG to detect, say the compassion that meditation has the power to cultivate? Please. (Davidson & Begley, 2012, pp. 188-189)

Davidson (Davidson & Begley, 2012) recounts that the Dalai Lama suggested inviting monks who had a familiarity with Western ways "who wouldn't suspect that electrodes might disrupt their meditation practice" (p. 189) to his lab in the United States, and the Dalai Lama "promised to put in a good word for us" (p. 189). At the same time that the Dalai Lama had promised to be on the lookout for expert meditators to come to Davidson's lab, he also had a personal request for Davidson:

He understood, he told us, that psychology research focused almost exclusively on negative emotions—anxiety, depression, fear, and sadness. Why, he asked, couldn't scientists instead harness the tools of modern neurobiology to study virtuous qualities such as kindness and compassion? (p. 190)

Davidson (Davidson & Begley, 2012) recalls that upon returning home, he discovered that "the term compassion was not even listed in the index of any major psychology textbook in those days" (p. 190). He states, "I vowed then and there to do what I could to remedy this. I would do everything in my power, I told the Dalai Lama, to put compassion on the scientific map" (p. 190).

Davidson reflects:

In the long run, though, not being able to study meditation scientifically in the 1970s turned out to be a blessing in disguise. It enabled me to turn my full attention to the study of emotion and the brain, which ultimately led to the development of affective neuroscience as we know it today. And by the time I was ready to study meditation, the neuroscientific tools were up to the task. (p. 183)

The Emergence of Contemplative Neuroscience

It was 2001 when Tibetan Buddhist monk and molecular biologist, Matthieu Ricard, entered Davidson's lab at the University of Wisconsin, the result of "the Dalai Lama's promise to put in a good word for us with expert meditators" (Davidson & Begley, 2012, p. 191). Expert
meditators mean meditating "upwards of ten thousand" hours—this calculates to "two hours a
day for seven days a week for 714 weeks—nearly fourteen years" (Davidson & Begley, 2012, p.
200). Because Ricard was both a scientist and an expert meditator, well-versed and experienced
in Tibetan Buddhism, he collaborated with Davidson (Davidson & Begley, 2012) in designing
the protocol of how to "measure brain activity during meditation" and what instrumentation to
use (p. 191). It was decided that Ricard would alternate between a "state of neutral indifference"
"characterized by not trying to do any particular task and not being disturbed by any strong
emotions or thoughts" (p. 192) to "compassion meditation with open-presence meditation and
devotion meditation (in which the meditator visualizes one of his most important spiritual
teachers and focuses on the powerful feelings of respect, gratitude, and devotion he feels for
him)" (p. 192). Ricard decided that the right amount of time to spend in each of these meditative
states would be two and half minutes (Davidson & Begley, 2012). The Dalai Lama was present
the next day at Davidson's lab to be presented the findings (Davidson & Begley, 2012).

Davidson (Davidson & Begley, 2012) states:

Since Matthieu was our only subject, I warned the Dalai Lama, we couldn't give
too much credence to what we found, but it certainly looked as if something
different was happening in the brain during the four meditative states than in the
baseline state. During compassion, both the insula and motor cortex were highly
activated. During focused attention, the classical network of attention areas,
including the prefrontal and parietal cortices, were activated. During open-
presence, there was widespread activation of many brain regions. During
devotion, we saw strong activation in the visual cortex, presumably as Matthieu
visualized his teacher. (pp. 195-196)

The Dalai Lama questioned whether these findings were purely the result of mental activity and
Davidson (Dawdison & Begley, 2012) "assured him—all the while torn between thinking that
this was very cool and knowing that it wasn't science, at least not yet" (p. 196). Davidson
(Davidson & Begley, 2012) states:
The Dalai Lama saw more clearly than we could that the field of contemplative neuroscience has just been born. Although he understood that it would take years until we had enough data to draw conclusions about how meditation not only produces distinct patterns of brain activity in real time but also leaves enduring changes in that activity—so that the brain of a meditator is different from that of a nonmeditator even when she is not meditating—he thought the research had the potential to transform humanity. Mental training might have the power to cultivate positive qualities of mind, as Buddhists have long taught as well as experience, and to relieve great suffering, increasing the world's store of compassion and loving-kindness. But ours is a scientific age, the Dalai Lama knew. It would take more that the testimony of Buddhists to persuade people of the potential of mental training. It would take science. (p. 196)

**Neuroplasticity and Buddhism**

Davidson (Davidson & Begley, 2012), encouraged by the results of Ricard's one-man study, was hopeful that by bringing together science and Buddhism, "we would get a more complete and unbiased picture of the human mind" (p. 197). His Holiness the Dalai Lama, who has a deep curiosity and interest in learning about science, has been instrumental in promoting and supporting this ongoing research through the collaboration with the Mind and Life Institute, a partnership that developed between the Dalai Lama and scientists, beginning in 1987, spearheaded by Chilean neuroscientists Francisco Varela who has since passed on and Adam Engle, an American businessman and Buddhist practitioner (Begley, 2007; Dalai Lama, 2005). Goleman (2007), one of the Mind and Life Institute board members, states, "One of the cardinal assumptions of neuroscience is that our mental processes stem from brain activity; the brain creates and shapes the mind, not the other way around" (p. xii). Goleman (2007), who is also a psychologist and long-time practitioner of Buddhist meditation, reflects, "One of the questions raised by the Dalai Lama was particularly provocative: can the mind change the brain? He had raised this point many times with scientists over the years, usually receiving a dismissive answer" (p. xii). The Dalai Lama (2006) states, "Buddhist practitioners familiar with the workings of the mind have long been aware that it can be transformed through training. What is
exciting and new is that scientists have now shown that such mental training can also change the brain" (p. viii). Begley (2007) states, "The discovery that mere thought can alter the very stuff of the brain" is a "natural point of connection between the science of neuroplasticity and Buddhism. Buddhism has taught for twenty-five hundred years that the mind is an independent force that can be harnessed by will and attention to bring about physical change" (p. 13). The Dalai Lama (2005) elaborates on the interface between neuroplasticity and Buddhism:

Buddhism has long had a theory of what in neuroscience is called the 'plasticity of the brain.' The Buddhist terms in which this concept is couched are radically different from those used by cognitive science, but what is significant is that both perceive consciousness as highly amenable to change. The concept of neuroplasticity suggests that the brain is highly malleable and is subject to continual change as a result of experience, so that new connections between neurons may be formed or even brand-new neurons generated. Research in this area specifically includes work on virtuosos—athletes, chess players, and musicians—whose intense training has shown to result in observable changes in the brain. These kinds of subjects are interestingly parallel to skilled meditators, who are also virtuosos, and whose dedication to their practice involves a similar commitment of time and effort. (Dalai, Lama, 2005, p. 150)

The Dalai Lama (2006) considers findings from neuroplasticity to be the "intersection where Buddhism and modern science become mutually enriching, with huge practical potential for human well-being" (pp. viii-ix). The Dalai Lama (2010) views meditation as "an enriched environment" (p. 123) conducive to promoting positive neuroplasticity. Neuroscientists like Davidson and others from the Mind and Life Institute share the Dalai Lama's sentiment that much is to be learned from the contemplative practices of mind training from the Buddhism tradition and that neuroscientific tools such as brain imaging can now begin to illuminate how the brain changes in response to these meditative practices (Begley, 2007; Davidson & Begley, 2012; Ricard, 2011). Wallace (Glickman, 2003) echoes the importance of this collaboration: "If research can show that meditation changes brain structure in ways that increase health and happiness, the implications will be enormous" (p. 8-4).
Attention, Neuroplasticity, and Brain Imaging Findings

Of particular relevancy to the phenomenon of Buddhist mindfulness is the critical finding from Merzenich (Doidge, 2007), in his studies with monkeys, that close paying attention was essential to enduring changes in the brain. Central to mindfulness is shifting out of automaticity and into the present moment. Further, paying close attention to one's breath or other object of attention is at the core of Buddhist mindfulness meditation practices and mindfulness in daily life. Related to paying attention and the changing of brain maps is a finding (Siegel, 2010a) that "the number of hours of practice is proportional to the amount of myelin wrapping the relevant circuits" (p. 219). Siegel (2010a) explains the relationship between paying attention, dedicated hours of mindfulness practice, and myelin:

Deep practice involves our coming to the edge and paying close attention. In neuroplasticity terms, paying close attention may be associated with the secretion of chemicals—such as brain-derived neurotrophic factor, BDNE, from localized firing neurons or acetylcholine from the nucleus basalis that enhance the growth and solidification of neuronal connections to one another. The emerging glia story may reveal how these supportive cells detect repeated neural firing and wrap myelin around those cells that are active. When we practice deeply—we may then be very specifically myelinating the resonance circuits which are active during the practice. (p. 225)

Siegel (2010a) asserts that "close attention sets the stage for neuroplasticity" (p. 226) which was a hypothesis of neuroscientists examining the effect of meditation on the brain (Davidson & Begley, 2012; Lazar & Treadway, 2009; Lazar, 2013). Several key attention studies have been conducted by Davidson (Davidson et al., 2012) involving meditators with a range of practice hours, ranging from novice meditators participating in the eight week MBSR program, to a group of individuals participating in a three month meditation retreat, and a group of monks who have logged between 10,000 and 52,000 hours of meditation. Each of these studies also involved a control group. The findings revealed that the more hours an individual had meditated, the more change was demonstrated in their brain; however even the novice
meditators experienced a change which was still perceptible four months after the MBSR program ended (Davidson & Begley, 2012). Davidson (Davidson & Begley, 2012) explains that the meditators with the longest number of practice hours showed greater capacity to maintain focused attention "in a calm, abiding manner without too much arousal or excitement" (pp. 208-209). Davidson (Davidson & Begley, 2012) elaborates, "mindfulness meditation transforms the neural underpinnings of attention … by minimizing activation in regions that are not relevant to the object of attention" (p. 211). Davidson (Davidson & Begley, 2012) notes that all the meditating participants demonstrated an increase of brain activation in the prefrontal cortex; however an unexpected finding was a decrease in brain activation in this region for those monks who have 37,000 to 52,000 hours of meditation versus the monks with 10,000 to 24,000 hours of meditation. Davidson (Davidson & Begley, 2012) explains how less activation would be reflected in the monks with the most hours of meditation experience:

> When they first practiced this form of meditation, it required significant effort, but as they became more accomplished they were able to attain a 'settled state' of alert focus with minimal effort. This also describes what a monk experiences in a meditation session, when some effort is required to reach the state of alert focus but then he settles into it, and less mental effort is required to maintain the same attentional focus. (p. 217)

Structural changes have also been noted in attentional studies by Lazar (Lazar & Treadway, 2009; Lazar, 2013). Lazar (Lazar & Treadway, 2009) reports that the long-term meditators showed "increased cortical thickness in the anterior insula, sensory cortex, and prefrontal cortex" (p. 51) as compared to the control group.

The practice of meditation can be compared to going to the gym. One's muscles and entire body become stronger, more flexible and more fit with consistent hours over an extended time. The monks with upwards of 37,000 hours of meditation are like our Olympian athletes whom we watch with awe at their graceful, seemingly effortless performance. The monks are
evidence of trait changes in the brain; however the encouraging news from these findings is how state changes over the course of eight weeks has the potential to become an enduring change in the brain with continual practice.

**Consciousness, Meditation, and the Limitations of Neuroscience**

As noted in the phenomenon chapter, mindfulness is the awareness that happens when we pay attention in the present moment. The concentrated meditations as described in the previous attention section are the "building blocks" for widening one's attention in such meditation practices as open-focused awareness and compassion meditation (Davidson & Begely, 2012, p. 241). Davidson (Davidson & Begley, 2012) reports in his control study with monks practicing compassion and awareness meditation an unusually high presence of gamma-wave activity in the monks. Davidson (Davidson & Begley, 2012) explains that "gamma waves are high-frequency brain waves that underlie higher mental activity such as consciousness" (p. 213). Davidson (Davidson & Begley, 2012) reports that the monks also demonstrated brain "activity in the insula, a region important for the bodily signals associated with emotion, and in the temporoparietal junction, which is important for empathy," and in the "regions responsible for planned movement" (p. 214). Davidson (Davidson & Begley, 2012) offers insight into the significance of high gamma-wave activity:

In particular, high gamma-wave activity and neural synchrony might be the brain signature of what the Buddhist practitioners themselves report they experience during meditation: a change in the quality of moment-to-moment awareness, bringing with it a vast panorama of perceptual clarity. It is as if a mental fog lifts, one that you did not even realize had been impeding your perception. (p. 214)

Ricard, one of the monks in the study, suggests that the motor region activation reflected the "total readiness to act, to help" when "he thinks of a loved one's distress" (Davidson & Begley, 2012, p. 214).
It is within this realm of consciousness that the Dalai Lama interjects the importance of one's subjective lived experience and the limitations of neuroscience. The Dalai Lama (2005) asserts:

Despite the tremendous success in observing close correlations between parts of the brain and mental states, I do not think current neuroscience has any real explanation of consciousness itself. Neuroscience can probably tell us that when activity can be observed in this or that part of the brain the subject must be experiencing such and such a cognitive state. But it leaves open the question of why this is so. For example, when a subject perceives the color blue, no amount of neurobiological explanation will get to the bottom of the experience. It will always leave out what it feels like to see blue. Similarly, a neuroscientist may be able to tell us whether a subject is dreaming, but can a neurobiological account explain the content of a dream? (pp. 130-131)

The Dalai Lama's assertion that neuroscience has not been able to capture the subjective nature of meditation brings us back to how long-term practitioners of meditation describe mindfulness as a "first-person experience" (Kabat-Zinn, 2013b, p. 284): "mindfulness has to be experienced to be known" (Germer, 2013, p. 8), and "mindfulness can only be understood from the inside out" (Kabat-Zinn, 2013b, p. 284). Siegel (2012a) elaborates on the nature of subjective experience:

It is the mental experience of the felt reality of something. Felt reality reminds us that subjective experience is 'real' even if it cannot be quantified, even if it cannot be compared from one person to another, even if it cannot be isolated and cultured in a tube. Subjective experience is real. (p. 28-9)

Both Siegel (2012a) and the Dalai Lama (2005) support an expansion of science to "studies of consciousness with first-person experiences" (Siegel, 2012a). The Dalai Lama (2005) contends:

A comprehensive scientific study of consciousness must therefore embrace both third-person and first-person methods; it cannot ignore the phenomenological reality of subjective experience but must observe all the rules of scientific rigor. So the critical question is this: Can we envision a scientific methodology for the study of consciousness whereby a robust first-person method, which does full justice to the phenomenology of experience, can be combined with the objectivist perspective of the study of the brain? (p. 134)
The Dalai Lama (2005) suggests that "bringing together these two modes of inquiry, both disciplines may be enriched" (p. 137) and "such collaborative study will contribute not only to greater human understanding of consciousness but also to a better understanding of the dynamics of the human mind and its relation to suffering" (p. 137).

**The ANS, Four Noble Truths, and the Four Foundations of Mindfulness**

The Buddha's teachings on the Four Noble Truths address suffering and the path to liberation and awakening (Goldstein, 2013). Neuropsychologist and Buddhist Mindfulness Practitioner Hanson (Hanson & Mendius, 2009) states that that from a physiological perspective, suffering "is embodied;" it "cascades through your body via the sympathetic nervous system (SNS) and the hypothalamic-pituitary-adrenal axis (HPAA) of the endocrine system" (Hanson and Mendius, 2009, p. 51). This cascading effect, which was described in the ANS section, mobilizes the body for action, a necessary activation that "helped our ancestors survive" (Hanson & Mendius, 2009, p. 53). Hanson explains that from a Buddhist perspective, the Buddha said that suffering was inevitable—the "first dart of existence" is "inescapable physical or mental discomfort" (Hanson & Mendius, 2009, p. 50). Hanson explains that the Buddha talked about "our reactions" to these first darts of physical or mental discomfort as "second darts" (Hanson & Mendius, 2009, p. 50). Hanson explains that in addition to these second darts having "effects on the body", "second darts usually have their greatest impact on psychological well-being" (Hanson & Mendius, 2009, p. 56). For example, according to Hanson, "repeated SNS/HPAA activity makes the amygdala more reactive to apparent threats, which in turn increases SNS/HPAA activation, which sensitizes the amygdala further" (Hanson & Mendius, 2009, p. 56). This physiological effect has its "mental correlate" in "an increasingly rapid arousal of state anxiety" (Hanson & Mendius, 2009, p. 56).
Recruiting help from the parasympathetic nervous system (PNS), which is our rest and restore ANS branch, can help down-regulate this sympathetic activation (Hanson & Mendius, 2009). Bringing attention to one's breath, intentionally breathing more deeply, and awareness of breath meditation practices as described in the Buddha's Four Foundations of Mindfulness can down-regulate the SNS and bring the body into a PNS state of restoration (Hanson & Mendius, 2009). Mindfulness meditation practices build the interoception skill of tuning into one's "internal states and bodily processes," the "sixth sense" as identified by Porges (2011, p. 77).

The brain imaging findings of long-term meditators revealed activation in the two brain structures, the anterior cingulate and the insula (Davidson & Begley, 2012; Lazar & Treadway, 2009; Lazar, 2013). Siegel (2012a) explains the relationship between paying close attention and the brain structures involved:

Paying close attention to one's internal state (breath, physical sensations) builds a tract of communication from the body proper up through Lamina 1 of the spinal cord and then into the subcortical brainstem and hypothalamic regions. The focus of attention on sixth sense data may increase Lamina 1 input from these lower, subcortical areas upward, to the anterior cingulate and the insula. First going to the posterior and then anterior insula, the body data between the anterior portions of the cingulate and the insula, along with the parietal input of the body in space, may contribute to our bodily defined sense of self. (p. 227)

Siegel (2012a) explains that cultivating an "awareness of our internal state [which] is a key skill necessary to facilitate self-knowing" (p. 23-3) and "internal attunement" (p. 23-3) is also the pathway to cultivating "empathy and compassion" (p. 23-3).

**Psychotherapy, the ANS, Taking Refuge in the Buddha, and Sangha**

Porges (Prengel, 2011) emphasizes that the cultivation of our internal state through the "bidirectional communication between the brain and the body" (p. 2) informs us of our sense of safety. Porges (Prengel, 2011) states, "If we are not safe we are chronically in a state of evaluation and defensiveness" (p. 14) which is reflective of sympathetic state arousal. Porges
(Preengel, 2011) continues, "Sensitive and effective therapists are very careful to realize that clients cannot change unless they're in a regulated state" (p. 4). Porges (Preengel, 2011) explains that the higher order evolutionary response of the ANS is social engagement, a part of the PNS, which functions to down regulate the sympathetic arousal. Social engagement within the psychotherapeutic context pertains to the safety of the therapeutic relationship mediated by the clinician's presence, attunement, and mutual recognition and attentiveness to the importance of the nervous system's responses (Preengel, 2011).

Within the Buddhist tradition, taking refuge in the Buddha invites a "compassionate presence" (Brach, 2012, p. 54) which potentiates a feeling of safety to be with whatever arises (Sumed, n.d.; Kornfield, 2008). An application of taking refuge in the Buddha is a form of mindfulness meditation called Devotion meditation in which the meditator uses visualization to "reconstitut[e] a complex mental image, such as the representation of a Buddhist deity, in the mind's eye" (Ricard, 2011, p. 130). Devotion meditation was one of the meditative states that Ricard, a microbiologist and Tibetan monk, induced while in the fMRI machine in Davidson's (Davidson et al., 2012) lab in his first study with an expert meditator who had logged upwards of ten thousand hours of meditation. The brain imaging revealed activation in Ricard's visual cortex (Davidson et al., 2012).

Hanson et al. (2009) suggests that a version of a taking refuge meditation intended to promote feelings of connection and safety is focusing on the felt sense of one's object of refuge, whether it be a nature scene, a pet, a teacher, an attachment figure, or a religious or spiritual sanctuary. The felt sense of protection will elicit the same circuitry identified in secure attachment which is an activation of the prefrontal cortex, the limbic system, and the right hemisphere (Hanson & Mendius, 2009, p. 93, citing Siegel, 2007).
Porges (Prengel, 2011) reflects on mindfulness meditation and asserts that "even mindfulness meditation exercises need to be conducted in a safe environment" (p. 11), especially for those individuals "with states of defense in which evaluation is critical for survival" (p. 11).

"Triggers for safety" (p. 11), according to Porges (Prengel, 2011) include the presence of an attuned other or "being in proximity to people with whom you feel safe" (p. 11). In the Buddhist tradition, as was elaborated in the phenomenon chapter, the teacher and sangha are integral to the Buddha's teachings. Within the context of psychotherapy, the sangha is the safety of the therapeutic relationship. Within the context of this nascent field of contemplative neuroscience, the sangha is the Mind and Life Institute (Davidson & Begley, 2012). Davidson (Davidson & Begley, 2012) reflects on the meaning of this sangha in his work as a neuroscientist: "There is the concept of Sangha in some of the contemplative traditions, which means a 'community' of like-minded or like-hearted individuals. I have been blessed with an extended Sangha largely due to the amazing work of the Mind and Life Institute" (p. 256).

**Taking Refuge in the Dharma and the Confluence of Science**

As elaborated in the phenomenon chapter, Brach (2012b) explains that taking refuge in the Dharma means "working with our inner life through meditation practice; dedicating ourselves to wise, ethical behavior, and understanding the [Buddha's] teachings or truths that guide us on the spiritual path" (p. 47). The Dalai Lama (2005; 2010) sees a confluence between science and Buddhism. He explains, "Although our tradition and contemporary science have evolved from different historical, intellectual, and cultural roots, I believe that at the bottom they share a similar philosophical outlook and methodology" (Dalai Lama, 2010, pp. 120-121). The Dalai Lama (2005) elaborates on the differences and similarities:

In one sense the methods of science and Buddhism are different; scientific investigation proceeds by experiment, using instruments that analyze external
phenomena, whereas contemplative investigation proceeds by the development of refined attention, which is then used in the introspective examination of inner experience. But both share a strong empirical base. So one fundamental attitude shared by Buddhism and science is the commitment to keep searching for reality by empirical means and to be willing to discard accepted or long-held positions if our search finds that the truth is different. (p. 24-25)

The search for reality and truth through empiricism is what the Buddha instructed his followers to do (Dalai Lama, 2005). The Dalai Lama explains, "In fact, the Buddha himself, in a famous statement, undermines the scriptural authority of his own words when he exhorts his followers not to accept the validity of his teachings simply on the basis of reverence to him" (p. 24); rather "the Buddha advises that people should test the truth of what he has said through reasoned examination and personal experiment" (p. 24).

The ethics aspect of the Dharma holds a dear place in the Dalai Lama's heart and fuels his passion for the importance of the partnership between science and Buddhism (Dalai Lama, 2005; 2010). The Dalai Lama (2010) contends that the interface between science and Buddhism "should assume a sense of urgency for all those who are concerned with the fate of humanity" (p. 120). The Dalai Lama's (2010) words reflect his deep concern about the ethics of science such as "nuclear weapons" as an example of "the aberration of science" (p. 124), and his deep concern about "destructive emotions like anger, fear, or hatred [that] can have devastating effects on the world" (p. 129). To this end, the Dalai Lama (2010) believes that the "Buddhist contemplative tradition" with its dedication to working with the mind, specifically cultivating the positive qualities of loving-kindness and compassion, "can help extend this field of scientific research" (p. 123). The Dalai Lama (2010) declares, "Similarly, if, as Buddhist tradition claims, the deliberate practice of compassion can bring about a radical change in an individual's outlook, leading to greater empathy for others, this could have important consequences for society in general" (p. 123). The Dalai Lama (2010), reflecting on the range of problems facing humanity,
reminds us "no matter what part of the world we come from, fundamentally, we are all the same human beings. We all seek happiness and want to avoid suffering" (p. 16). He calls upon us "to cultivate a universal responsibility toward each other and extend it to the planet we have to share" (Dalai Lama, 2010, p. 16). He states, "When I speak of kindness and compassion, I am not expressing myself as a Buddhist, or as the Dalai Lama, or as a Tibetan, but rather as a human being" (Dalai Lama, 2010, p. 12). The Dalai Lama (2010) declares, "the key to a better, happier world is greater compassion" (p. 13).

Circling back to the Dalai Lama's personal request to Davidson in the 1990s for neuroscience to study positive emotions like compassion, Davidson has implemented mindfulness and compassion training programs that are developmentally appropriate for young children through his Center for Investigating Healthy Minds at the University of Wisconsin (Decker, 2014). Davidson (Decker, 2014) is also "working with top game designers to create games for mindfulness and kindness for middle schoolers" (p. 3). Additionally, Davidson (Decker, 2014) is working on a project for adults "that implements visual tools at workstations" (p. 3). Davidson (Decker, 2014) emphasizes that his research has shown that "one size doesn't fit all when it comes to meditation. What's best for one person is not best for another. Individuals need to find the strategy that works for them and stick with that" (p. 4). Davidson (Decker, 2014) states, "The potential [for cultivating mindfulness, kindness, and compassion] is nothing short of revolutionary" (p. 3).

Summary

Neuroplasticity offers a window into how the brain changes in response to experiences and mental training. The Buddhist tradition has developed comprehensive practices for mind training, including mindfulness and compassion meditation. Neuroscience through the tools of
brain imaging can now peer into the brains of meditators to detect how brain structure and function are impacted by different forms of meditation. The Dalai Lama, through his collaboration with the Mind and Life Institute, has embraced and enabled the neuroscience studies of expert meditators with upwards of ten thousand hours of meditation practice with the hope to demonstrate the possibilities of cultivating positive mental qualities such as compassion and to promote the ethics of kindness and interconnectedness. There is a mutuality of respect between the scientists of the Mind and Life Institute and the Dalai Lama; both acknowledging a joint mission to alleviate suffering and to learn from each other. The primary brain region activated during meditation is the prefrontal cortex which also has been shown in outcome measures for secure attachment and suggestive of mental health. Mindfulness meditation is thus seen as highly integrative, a form of self-attunement, and the enriched environment to cultivate positive neuroplasticity.

The following chapter will be a discussion that includes a highlight of key points, an exploration of the intersection of these three lenses, and a conclusion of salient points. The discussion chapter also includes how the findings from this thesis are relevant for social work and identifies the strengths and limitations of this study.
CHAPTER VI

Discussion

The aim of this theoretical thesis was to present the phenomenon of mindfulness from a Buddhist perspective and explore this phenomenon through the lenses of the Object Relations Psychoanalyst, D.W. Winnicott, and neuroscience to gain a richer understanding of the nature of mindfulness and how mindfulness enhances psychotherapy, in particular the therapeutic relationship. The context of mindfulness from the Buddhist perspective was chosen since the Buddha was historically the first practitioner of mindfulness and his teachings from over 2500 years ago form the foundation of mindfulness. As enthusiasm about the promise of these ancient mindfulness practices has spread throughout contemporary Western society, a dynamic conversation among Buddhist scholars, Buddhist teachers, and mindfulness-based clinical and research professionals has emerged regarding "whether the very essence of such practices and perspectives might be unwittingly denatured out of ignorance and/or misapprehended and potentially exploited in inappropriate and ultimately unwise ways" (Williams & Kabat-Zinn, 2013, p. 1). While it was beyond the scope of this thesis to examine the depth of this dynamic conversation, an acknowledgement of the import of this conversation helps create a framework for the extraordinary "convergence" (Kabat-Zinn & Davidson, 2011, p. 1) taking place between the contemplative tradition of Buddhism and science: the "cross-fertilization" (p. 3) of different "ways of knowing," (p. 3) the 'third-person' and the "first-person," (p. 3). Since its inception in 1987, the Mind and Life Institute has been a holding environment for individuals from divergent
disciplines such as science, philosophy psychology, Buddhism, medicine, education, and spirituality to engage in:

An ongoing mutual exploration of some of the most profound questions facing humanity in terms of science, ethics, and morality, such as the nature of mind, the nature of the universe and our place in it, the nature of reality, and the potential for the healing and transformation of afflictive emotions into more positive mental states, leading to greater health, harmony, happiness, and possibly both inner and outer peace. (Kabat-Zinn & Davidson, 2011, p. 4)

It is in this vein of appreciation and the open, curious spirit evoked by Williams and Kabat-Zinn (2013) that this theoretical thesis was undertaken to explore how this ancient practice of mindfulness may be understood through the psychodynamic lens of Winnicott and the neuroscientific lens of contemplative neuroscience; thus illuminating the value of mindfulness in informing the therapeutic process and enhancing a clinician's therapeutic presence.

Key Points from the Phenomenon Chapter

The following is a summary of the key points of this ancient practice of mindfulness as presented from the Buddhist perspective. 1) The challenge of understanding mindfulness: A number of factors have contributed to the complexity of understanding mindfulness. These factors are the diverse perspectives that have evolved from the different lineages of Buddhism; the two forms of Dharma teaching which include the "faithful replication of the Buddha's message" and the "adaptive" teachings of the Buddha (Burton, 2013, p. 34); and the two different translations of the Buddha's oral teachings in Pali and Sanskrit translations. 2) Embrace the paradox: Kornfield (2010) states "there are many valid approaches to the same fundamental truth" (p. 19) and "if the reader gains the understanding that the Dharma cannot be found in the contrasting forms and techniques of Buddhism but only in the underlying experience, then he is really ready to practice" (p. 19). 3) Mindfulness as direct experience: Mindfulness is not a concept to be understood; it "has to be experienced to be known" (Germer, 2013) and "can only
be understood from the inside out" (Kabat-Zinn, 2013b, p.284). The vehicle for cultivating this direct, first-person experience of mindfulness is meditation. 4) **Sati, the Pali word for mindfulness suggests three components: awareness, attention, and remembering:** I will highlight each of these components separately. 5) **Attention:** The cultivation of mindfulness arises out of one's intentional paying attention in the present moment with an attitude of kindness and non-judgment (Kabat-Zinn, 2013a). Meditation cultivates the ability to steady and sustain attention. Attention can have a laser-like, single-focused quality or a broad open-focused quality taking in the panoramic view. Attention is trained through the Four Foundations of Mindfulness Meditations. The quality of attention has been described as clear seeing or "bare attention," "an exact registering" of what arises (Epstein, 1995). 6) **Awareness:** Kornfield (2008) describes awareness or consciousness in metaphoric language: Awareness has both a *sky-like nature* which is "open, transparent, timeless, and wave-like" p. 40) and a *particle-like nature* which is "momentary, rapid, sensory, and flavored by mental states" (p. 40). Kornfield (2008) states that mindfulness training develops one's ability to "notice the distinction between" the "transient states" passing through the sky-like, open space of awareness" (p. 41) and by learning to rest in this open space of awareness, "we become unafraid of the changing conditions of life" (p. 42). Kabat-Zinn (2013a) and Siegel (2012a) explain that awareness or consciousness is beyond thought-based knowing; it is a subjective, internal knowing "that no one on the planet can explain" (Siegel, 2012a, p. 28-10). 5) **Remembering:** Remembering is the reminder to call upon the virtues of the Buddha, Dharma, and Sangha which are the underpinnings of the Buddha's teachings. 6) **Taking refuge in the Buddha:** Taking refuge in the Buddha is a symbolic reminder "to be wise, to be alert, [and] to be awake" (Sumedo, n.d.), as well as a reminder for us to see and rest in our own "Buddha nature" (Kornfield, 2008, p. 290), a
recognition of our own innate goodness. 7) Taking refuge in the Dharma: The Dharma refers to the Buddha's teachings of which the Four Noble Truths and the Eightfold Path comprise the Buddha's message that suffering exists; however there is a path out of suffering through the engagement of the wise and compassionate investigation of a disciplined meditation practice (Goldstein, 2002). An important distinction delineated in the eight step path that is germane to mindfulness is that "right mindfulness" (Goldstein, 2013, p. 320) "must be guided by right view, motivated by right intention, grounded in ethics, and be cultivated in conjunction with right effort;" otherwise it is mindfulness as "bare attention without an ethical component" (Wallace, 2007, p. 12). 8) Taking refuge in the Sangha: Sangha is a community, a group of like-hearted individuals, or a teacher to impart the wisdom of the dharma and provide a source of support and connection. 9) Fruits of awakening: The Buddha's teachings on mindfulness are the gateway to liberation, the awakening of wisdom, happiness, and the recognition of our innate goodness. Wallace (Kabat-Zinn & Davidson, 2011) explains that from the Nalanda tradition of Buddhism, "the cultivation of genuine eudaimonic happiness," (p. 139) or "human flourishing" (p. 138) is synonymous with what the Buddha and the Dalai Lama refer to as liberation. Wallace (Kabat-Zinn & Davidson, 2011) elaborates:

The pursuit of eudaimonic well-being [is] the integrative pursuit of inner happiness, a sense of well-being that springs from within, from the very quality of your heart, your mind, your awareness. The integrated pursuit of inner happiness is not contingent upon pleasant things happening to you. It is integrated with the pursuit of truth and understanding the nature of reality. It is integrated with the pursuit of virtues that we all value, whether we're religious or not, qualities such as compassion, empathy, generosity, and so forth. (p. 138)

10) Way of being: Wallace's joining together the pursuit of eudaimonic well-being and the liberation that arises from the wise and disciplined examination of mind to alleviate suffering produces the daily seed of mindfulness that grows into the fruit of mindfulness as a life of awareness, a way of being.
Mindfulness in Psychotherapy

1) Both psychotherapy and Buddhist psychology share the intent to alleviate psychological suffering (Siegel & Fulton, 2013). 2) Mindfulness within psychotherapy echoes the three components of mindfulness: awareness, attention, and remembering (Pollak et al., 2014). Especially relevant for psychotherapy is mindfulness characterized by "acceptance" of the "unfolding experience moment to moment" with "an attitude of warmth, friendliness, and compassion" (Pollak et al., 2014, p. 2). 4) Within the psychotherapeutic context, mindfulness can be integrated along a continuum "from the implicit influence of [the] therapist's own mindful awareness of what happens in treatment to explicitly teaching mindfulness exercises to patients" (Fulton, 2013, p. 59). 5) Fundamental to either an implicit or explicit application of mindfulness practices within psychotherapy is becoming a more mindful therapist (Fulton, 2013; Germer, 2013; Kabat-Zinn, 2013b; Pollak et al., 2014; Siegel, 2010a). 6) One's personal meditation practice holds great value in cultivating those "qualities underlying a successful treatment relationship" (Fulton, 2013, p. 62). 7) Mindfulness meditation fosters "the cultivation of attention," "compassion and empathy," "openness and acceptance," affect tolerance, and an increased "resonance" and "attunement" to oneself and others (Fulton, 2013, p. 62). 8) Mindfulness meditation cultivates presence which is the "most important element of helping others heal" (Siegel, 2010a, p. 1).

Understanding the Phenomenon of Mindfulness: A Winnicottian and Neuroscience Lens

An understanding of the phenomenon of mindfulness through a Winnicottian and neuroscience lens was presented in their respective chapters. This section will highlight key points from each of these respective lenses.
Highlights from a Winnicottian Perspective

A Winnicottian understanding of the phenomenon of mindfulness is shaped by the concepts of holding and good-enough that undergird his theory of human development which placed the mother-infant relationship as formative in the individual's realization of his inherited growth potential and in the emergence of the true self (Winnicott, 1987/2002). It is within this backdrop that the story of the Buddha's discovery of mindfulness, which was described in chapter IV, seems to present a natural illustration of Winnicott's central concepts. The Buddha's dropping into this deeper state of relaxation out of which his joyful childhood memory arose represents Winnicott's state of going-on-being, a state characterized by inner attunement, an internalization of ego relatedness and safety. Meditation thus potentiates the state of going-on-being, an experience of inner attunement that can hold the fullness of one's experience and is the foundation for the discovery of one's true self. It was from this state of going-on-being, a contemplative state, that the Buddha turned inward, tapped into his inner impulse, and guided by his home base of authenticity and creativity, embarked on the contemplative path. The creative impulse and discovering one's authenticity are both fruits of awakening in mindfulness practices and in Winnicott's understanding of living from one's true self. Although Winnicott did not use the term awakening, he believed that the inherited growth potential within each person would flourish into a life worth living if nurtured by a good-enough facilitative environment.

Winnicott's lived experience as a pediatrician informed his clinical work as a psychoanalyst, offering a window into how the good-enough facilitative environment was transposed into the psychotherapeutic setting. Winnicott's (1971/2005) belief that an "experience..of a non-purposive state," a state of "formlessness" (p. 74) was essential for the patient's psychological change process resonates with meditation as a non-purposive, formless
experience conducive for the true self to emerge. Within this specialized setting of a non-
purposive experience, Winnicott embodied a mindful presence fortified by ego support,
reflection, and titration of interpretation to facilitate the patient's discovery of his true self. As in
the dharma from a Buddhist perspective, Winnicott was grounded in the foundation of theory;
yet flexible and open in meeting each unfolding moment, experience, and patient anew. From
this base of theory and moment-to-moment engagement with a beginner's mind, spontaneity,
authenticity, and creativity sprung forth (Grolnick, 1990). Grolnick (1990) describes Winnicott
as "a therapist's therapist:" "Reading him frees up one's natural therapeutic verve" (p. 10).
Similarly, the Buddha did not want to be copied; his hope was in imparting his teachings not as
dogma, but as an invitation to engage in a personal and wise investigation (Goldstein, 2002).
Paradox abounds in mindfulness, as was elaborated in the phenomenon chapter. Yet Winnicott
(1971/2005) understood the realities of paradox in life, exemplified a comfort with being with
ambiguity and uncertainty, and invites us to cultivate a spaciousness to approach paradox: "My
contribution is to ask for a paradox to be accepted and tolerated and respected, and for it not to
be resolved" (p. xvi).

Highlights from a neuroscience perspective

The neuroscience of mindfulness chapter introduced the concept of a relational and
embodied brain shaped by relationships and experience to accompany our understanding of the
anatomical brain housed in the skull. The malleability of the brain that enables this shaping to
occur is called neuroplasticity. In particular to the phenomenon of mindfulness, the nascent field
of contemplative neuroscience has emerged to investigate how the brain changes in response to
mental training. A critical finding from neuroplasticity discoveries has been that "paying close
attention is essential to long-term plastic change" (Doidge, 2007, p. 68). This finding has
particular relevancy for mindfulness since paying attention is at the core of Buddhist mindfulness meditation practices and mindfulness in daily life. The Dalai Lama (2010) views meditation as an enriched environment" (p. 123) conducive to promoting positive neuroplasticity. Through his collaboration with the Mind and Life Institute, he has embraced and enabled the neuroscientific studies of expert meditators with upwards of tens of thousands of hours with the hope of demonstrating the possibilities of cultivating positive mental qualities such as compassion and promoting the ethics of kindness and interconnectedness. There is a mutuality of respect between the scientists at the Mind and Life Institute and the Dalai Lama; both acknowledging a joint mission to alleviate suffering and bring more mindfulness and compassion into our daily lives. A significant finding from the structural and functional studies of meditation revealed the activation of the prefrontal region of the cortex which is the same area of the brain noted in outcome measures for "secure-parent-child-attachment" and in a description of mental health surveyed by "a broad range of psychotherapists" (Siegel, 2012a, p 6-5). This overlap of findings suggest that the functions of the prefrontal region are germane to mindfulness, secure attachment and mental health.

Discussion

This section explores the intersection of mindfulness, Winnicott, and neuroscience to discover the interconnection of these three lenses in the generation of a richer understanding of mindfulness. As we approach this intersection of converging lenses, let us begin by invoking the sacred pause of mindfulness, (Brach, 2003) a moment of turning our attention inward to our breath, noticing whatever feelings, thoughts, or sensations predominate, and meeting our experience with kindness and gentleness. As I pause, I become aware of feeling a bit overwhelmed and turn to Brach's (2014) words for comfort:
In any moment, no matter how lost we feel, we can take refuge in presence and love. We need only pause, breathe, and open to the experience of aliveness within us. In that wakeful openness, we come home to the peace and freedom of our own natural awareness. (Brach's homepage website quotation)

I notice as my breathing slows, more space opens up inside and I can approach the intersection with intention, greater clarity, and self-compassion. This simple yet profound pause of taking refuge in presence and love resides at the center of the intersection of mindfulness meditation, Winnicott, and neuroplasticity.

**Different Ways of Knowing**

The intersection of two different ways of knowing emerged through the exploration of the direct experience of mindfulness and the objective third-person knowing through the neuroscientific studies using brain imaging. It was emphasized in the phenomenon chapter that mindfulness is not a conceptual knowing; rather one's understanding of mindfulness emerges through the engagement of the direct, subjective experience of meditation. Mindfulness was also described as a *way of being* by long-time practitioners and as "the awareness that arises by paying attention on purpose, in the present moment and non-judgmentally" (Kabat-Zinn, 2013a, p. xxxv). Both of these descriptions of mindfulness capture the intentional close paying attention which is both central to mindfulness and essential in creating long-term plastic change in the brain. The contemplative neuroscience chapter revealed findings that demonstrated brain changes in response to the subjective experience of different forms of Buddhist meditation practices. While these findings reveal the exciting realization that "we can use the subjective inner aspect of reality to alter the objective structure of the brain" (Siegel, 2010a, p. 7), the Dalai Lama (2005) pointed out the limitations of brain imaging in capturing the nature of this subjective experience, offering the following example: "When a subject perceives the color blue, no amount of neurobiological explanation will get to the bottom of the experience. It will always
leave out what it feels like to see blue" (p. 130). In a similar way, mindfulness as a way of being, a description which reflects mindfulness as a trait, is evidenced on brain scans as quantifiable measures of functional and structural brain changes; however the subjective felt reality of living mindfully can not be captured by the scans. In like fashion, the experience by the expert meditators of visualizing or imaging a loved one in distress and embracing this individual with compassion and loving-kindness is a felt reality, an internal experience with quantifiable markings on the brain imaging scans but absent on the scans is the subjective experience of the descriptive narrative. We are invited to embrace the validity and value in the convergence of both ways of knowing and how they complement each other. Subjective experience is a "felt reality:" "real even if it cannot be quantified" (Siegel, 2012a, p. 28-9). The felt reality of our subjective experience is a valid and essential means to self-awareness and to understanding how relationships and experiences impact us, and the third-person knowing from the neuroscience findings provide quantifiable evidence how our subjective experience has the power to harness our minds to change our brain's structure and function.

The felt reality of our subjective experience is the language of mindfulness, relationships, and psychotherapy and even though the nature of this subjective experience cannot be quantified, Siegel, (2007) a child psychiatrist, attachment researcher, and scientist, observed that the prefrontal cortex region of the brain was similarly involved in outcome measures for mindfulness and secure-child-parent relationships (p. 26 citing Kabat-Zinn, 2003; Stroufe, Egeland, Carlson & Collins, 2005) and in a description of mental health surveyed by "a broad range of psychotherapists" (Siegel, 2012a, p 6-5). This overlap of findings suggests that the functions of the prefrontal region are germane to mindfulness, secure attachment, and mental health.
Linkage of Prefrontal Cortex

What is it about the prefrontal region that might link a parent's mindful way of being with her child, a clinician’s mindful way of being with her patient, and our own mindful way of being with ourselves? We saw from Siegel’s (2007; 2012b) hand model how integrative this prefrontal region is due to its directness of contact with the limbic, brainstem, and spinal cord regions. Recall from the neuroscience chapter that these are the more evolutionarily primitive regions of the brain and play a role in the ANS fight-flight-freeze-collapse response, appraisal of danger, encoding of implicit and explicit memory, and drive our need for connection. Siegel (2010b) explains that "this integrative area goes off-line" when we "flip our lids" (p. 22). Flipping our lids describes what happens when we "lift [our] fingers" and this thoughtful part of our brain is unavailable to guide our interactions with others and instead the "limbic lava' from the fiery emotional centers" "can explode in out-of-control activity" (p. 26). When these fingers are in place, "hugging your thumb," (Siegel & Bryson, 2011, p. 63) this integrative prefrontal region is involved in body regulation, attuned communication, emotional balance, response flexibility, fear modulation, empathy, insight, moral awareness, and intuition (Siegel 2007). Love and connection, the essence of these functions, and the process of self-awareness can shepherd the fingers back down to hug the thumb and bring this prefrontal region back on-line (Siegel, 2007).

The Relational and Embodied Brain

At the heart of love, connection, and self-awareness is how the brain is a relational organ shaped by human connection and experience and embodied in that there is a bi-directional influence between the mind and the brain. Our relational brain speaks to the hardwiring of our limbic system for connection which underscores the quality of early caregiving interactions in providing "the very foundation of our sense of self" (Siegel, 2010b, p. 10). Our embodied brain
reminds us that our emotions, sensations, and physiology influence our mind while the state of the mind also influences the body (Davidson & Begley, 2012). Although it is only in recent decades that science has been able to validate that the brain is literally shaped by relationships and experience, Freud spoke about the plastic brain using the term mental plasticity (Doidge, 2007). Winnicott's understanding of the good-enough mother may have been influenced either by being a student of Freud or by his keen observations as a pediatrician and psychoanalyst. In either case, the importance Winnicott placed on the good-enough mother and the role of the facilitating holding environment provide the subjective knowing of the scientific concept of neuroplasticity.

**Special Environments and Neuroplasticity**

The understanding that development and growth (plasticity) is fostered within some kind of special environment is a resonant link between Winnicott, mindfulness, and neuroscience. Winnicott's conceptualization of the holding environment encompasses the fullness of holding from attunement to the repair of ruptures, to nurturing the capacity to be alone to modifying adaptations for growth, to developing one's own self-awareness to supporting the discovery of the true self and is equally extended to both the mother and the caring professional. Within the psychotherapeutic context, Winnicott believed that a specialized setting, a non-purposive, formless state was essential for the individual to have an experience of re-integration, akin to the state of going-on-being, and thus discover his true self. The good-enough facilitating environment within the caregiving and psychotherapeutic context can be considered an enriched environment that promotes neural growth and development. Additionally, Winnicott's conceptualization of the good-enough mother as applied to the caregiving relationship and the
psychotherapeutic relationship encompasses the love, connection, and facilitation of self-awareness that is instrumental to building the integrative fibers of the prefrontal cortex.

Within a mindfulness meditation frame, a Winnicottian perspective would characterize the contemplative state of meditation as a state of formlessness which fosters self-attunement, creativity, and integration. According to a Winnicottian lens, meditation as a formless state is also akin to the state of going-on-being which reflects the nurturing holding environment of love and connection, as well as a later internalization of this ego support, that enables an individual to drop deeply into their own inner experience of self-awareness. The Buddha's first taste of this contemplative state of inner attunement which awakened him to his true nature and guided him onto a path that was to change his life and the lives of many through his teachings demonstrates the presence of good-enough holding in his life. Within the framework of contemplative neuroscience, the findings of how brain structure and function change as a result of meditation practices reinforce the Dalai Lama's first-hand knowing of the transformative power of Buddhist meditation practices and provide the scientific reinforcement that meditation is an enriched environment for promoting positive neuroplasticity. Long-time practitioners of mindfulness meditation do not necessarily use the language of an enriched environment; however their subjective experience of the effects of a devoted practice describe their process of self-awareness and discovery of waking up from the inevitability of suffering to an awakened heart and life, where one's relationship to suffering has transformed.

**Suffering, the ANS, and Safety**

The inevitability of suffering as described by the Buddha can be understood physiologically as an embodiment of the physiological arousal of the autonomic nervous system, endocrine system, and hypothalamic-pituitary-adrenal axis (Hanson & Mendius, 2009). Siegel's
description of *flipping our lids* captures how our survival responses of fight-flight-freeze-collapse can cause us to lose our connection to the wiser functions of our prefrontal cortex, the more evolutionarily advanced part of our brain. Porges (2011; 2012) pointed out that survival and feeling safe dictate the activation of these survival responses which happen through a process he calls, "interoception," the "ability to sense internal states and bodily processes—through interoceptors located on the heart, stomach, liver, and other organs inside the body cavity" (p. 77). Porges (2011; 2012) emphasized that the infant's primary relationships function as the regulators of safety which implies that the caregivers are aware of their own internal states. Siegel (2010b) contends that one's own body awareness "is at the heart" of attuned communication which imparts "the important sense of 'feeling felt' "that children need to feel secure and to develop well" (p. 27) and the important sense that clients need to feel safe within the psychotherapeutic context.

Safety, attunement, and *feeling felt* are also relevant in the discussion of mindfulness meditation. The intentionality of mindfulness, whether through the formal practice of meditation or through the informal practice of mindfulness in daily life, is characterized by self-awareness held with heartfulness, a coming home to self (Brach, 2012b). A Winnicottian perspective and the Buddha's story reinforce the notion of meditation as a state of inner attunement, reflective of an internalization of a good-enough mother and the resultant capacity to tolerate the fullness of one's experience. Considering how our sense of self emerges out of relationship and is the emotional valence that we internalize, the lack of an internalization of good-enough ego support can present challenges to the practice of mindfulness meditation. While it was noted that mindfulness meditation "confers upon us the capacity to relate to emotional life in an open, balanced, accepting, and tolerant way" (Epstein, 1995, p. xxii), turning inward to one's
experience can be challenging if the internalized valence of holding of one's experience lacks the Winnicottian good-enough provision.

Porges, (Prengel, 2011) cognizant of the vulnerabilities present in those individuals in which "states of defense [are] critical for survival," recommends that mindfulness meditation be conducted in a safe environment. Brach, (2012a) sensitive to safety and ego support, points out that awareness and wisdom from mindfulness are challenging to access when the brainstem and limbic regions are triggered in survival mode. Brach (2012a) recommends contacting a sense of safety and connection as a gateway back to awareness and back to a connection with our prefrontal cortex. The meditation practices recommended by Hanson & Mendiis (2009) and Brach (2012b) promote an internalization of safety by focusing on the felt sense of one's object of refuge, whether it be a nature scene, a pet, a teacher, an attachment figure, or a religious or spiritual sanctuary. In addition, meditation practices of loving-kindness and compassion are utilized to build the resource state of connection. Brach (2012a) also points out that the ego support of a psychotherapist and/or a sangha are important ways to support the building of internal resource states and feel the interconnectedness of a community.

Attention

Another salient finding within the intersection of mindfulness, Winnicott, and neuroscience is the importance of attention. The intentionality of bringing attention to the present moment is the vehicle for shifting us out of being on automatic, the state of mindlessness, to being awake and present in the moment, the state of mindfulness. The cultivation of mindfulness through the formal practice of mindfulness meditation entails learning how to sustain one's attention on a chosen object, traditionally moving through the Buddha's Four Foundations of Mindfulness which starts with mindfulness of the body. We open to the larger space of
awareness when we awaken our attention to this present moment. We learned by the experiments conducted on monkeys by Merzenich (Doidge, 2007) that "when the animals performed [their] tasks automatically, without paying attention, they changed their brain maps, but the changes did not last" (p. 68). In other words, "Paying close attention is essential to long-term plastic change" (Doidge, 2007, p. 68). The long-term plastic change of close paying attention was verified through the contemplative neuroscience findings of both expert and novice meditators, demonstrating how the Buddhist meditation practices, are a form of mental training, produce quantifiable changes in the structure and function of the brain proportional to the number of hours of meditation practice accrued. From a Winnicottian perspective, attention resides within his notion of the good-enough mother who encompassed the presence of particular sensibilities that enabled the mother to attune, provide ego support, appropriate adaptation, and such quality holding to nurture the flourishing of the individual's unique inherited tendencies and thus his discovery of his true self. Winnicott's conceptualization of the mother-infant dyad and the good-enough holding environment was equally integral in the psychotherapeutic context. Winnicott (1988) emphasized that "in psychology it must be said that the infant falls to pieces unless held together, and physical care is psychological care at these stages" (p. 117). It could be said that Winnicott's good-enough mother's/clinician's attention was instrumental in creating the foundation for the individual's development of self-awareness, security, and integration—the internal conditions for the development of positive plastic changes in brain development.

**Mindfulness in Psychotherapy**

It was noted that mindfulness within the context of psychotherapy echoes the three components of mindfulness: awareness, attention, and remembering (Pollak et al., 2014). These authors (Pollak et al., 2014) suggest that mindfulness characterized by "acceptance" of the
"unfolding experience moment to moment" with "an attitude of warmth, friendliness, and compassion" is especially relevant for psychotherapy. It was also noted that mindfulness can be integrated within a psychotherapy setting along a continuum "from implicit influence of [the] therapist's own mindful awareness of what happens in treatment to explicitly teaching mindfulness exercises to patients" (Fulton, 2013, p. 59). Also, embedded within a clinician's mindfulness stance is a grounding in the Dharma, the Buddha's teachings, which rests in the background of the MBSR teachers as they are with the moment-to-moment unfolding of their client's experience (Kabat-Zinn, 2013b).

The quality of attention that Winnicott brought to his psychotherapy sessions contains strong resonance with mindfulness and offers a window into a clinician's implicit way of being mindful in psychotherapy. Applegate & Bonovitz (1995, citing Khan, 1975) state, "Winnicott brought a powerful personal presence to the clinical encounter; many who came in contact with him spoke of his "poised somatic stillness" (p. 20). Poised somatic stillness reflects Winnicott's description of how he works in psychotherapy: "I personally do my work very much from the body ego. Ideas and feelings come to mind, but these are well-examined and sifted before an interpretation is made" (Tuber, 2008, pp. 219-220, citing Winnicott, 1971). Working from the body ego speaks to Winnicott's grounding in his own body as a resource to take in the interoceptive signals that Siegel (2010b) describes as the heart of attuned communication. The sifting and examination of the ideas and feelings that come to mind, along with Winnicott's receptivity to body signals, also capture the "actively receptive state" of presence (Siegel, 2010a, p. 24). Siegel (2010a) explains that presence is a "state of being open" "to the unfolding of possibilities" that transcends our perceptions "based on prior experience" (p. 35) while attunement contains the open quality of presence to be fully receptive to the internal world of
another. Attunement which "is the heart of empathic relationships" is also at "the heart of therapeutic change" (Siegel, 2007, p. 290). Siegel (2007) states, "As we feel the mindful spaciousness to embrace whatever arises in the field of awareness, patients will sense an opening space, an encircling embrace, that can contain what before was unbearable knowledge, emotion, or emotion. As we share attention, we initiate attunement" (p. 295). This open field of presence parallels the open space of awareness that contains within it the centrality of attention to be with whatever arises and extends beyond as the vast sky-like nature that holds these passing transient states.

This open quality of presence can also be seen in the description of Winnicott's way of being provided by his wife, Claire (Winnicott, 1989):

In his clinical work, D. W.W. made it his aim to enter into every situation undefended by his knowledge, so that he could be as exposed as possible to the impact of the situation itself. From his point of view this was the only way in which discovery and growth were possible, both for himself and for his patients. This approach was more than a stance; it was an essential discipline, and it added a dimension to his life as vital to him as fresh air. (p. 2)

This essential discipline exemplifies the essence of Zen beginner's mind: "In the beginner's mind there are many possibilities, but in the expert's there are few" (Suzuki, 2011, p. 1). Applegate & Bonovitz (1995) capture this embodiment of Winnicott's moment-to-moment presence, unencumbered by knowledge and prior perceptions, with this description: Winnicott "insist[ed] on co-constructing each therapy anew according to its unfolding relationships dynamics" (p. 20). Here is where paradox intersects with Winnicott and Buddhist mindfulness.

Knowledge and a disciplined clinical approach were very important to Winnicott (Applegate & Bonovitz, 1995; Grolnick, 1990). Like the Buddha's teachings which rest in the background of the MBSR teachers as they are with the moment-to-moment unfolding of their clients' experiences (Kabat-Zinn, 2013c), Winnicott was a clinician "well grounded in classical
theory who was free to experiment and 'play' with new ideas and intuitively derived interventions" (Applegate & Bonovitz, 1995, p. 20). Grolnick (1990) states, "He lived out his belief that originality must spring from a steady base of tradition and organization" (pp. 10-11). Thus, the implicit mindfulness that Winnicott displayed was in having a well-grounded base of theory that did not dictate his interventions, but freed him up to be present moment-to-moment to the unfolding and co-construction of therapy with spontaneity, authenticity, and creativity.

The close paying attention that is vital for creating long-term plastic changes within the brain is also a vital element of the psychotherapeutic change process. The clinician's capacity to hold spacious awareness, hone in on details, notice and harness her own wandering attention, be aware of her own internal process in order to resonate and differentiate from her client, and cultivate a tolerance, spaciousness, and compassion around affect are just a few of the qualities of what matters in successful psychotherapy (Fulton, 2013; Siegel, 2010a; 2010b). These same qualities that matter to a client's feeling safe and held by the clinician's mindful attention and attunement are qualities that can be cultivated through a personal mindfulness practice. Pollak et al. (2014) state, "The foundation for becoming more mindful human beings—and in the process, more mindful therapists—is our own mindfulness meditation practice" (p. 27). Fulton (2013) contends that "irrespective of the theoretical approach or techniques used in treatment," (p. 59) the implicit influence of the clinician's own mindfulness meditation practice and training holds great value by potentiating the cultivation of those "qualities underlying a successful treatment relationship" (p. 62). Subjective reports and contemplative neuroscience findings identify that mindfulness meditation is an enriched environment conducive to the cultivation of attention, "compassion and empathy," "openness and acceptance," affect tolerance, and an increased "resonance" and "attunement to oneself and others (Fulton, 2013, p. 62). The particular
relational sensibilities of Winnicott's good-enough mother also reflect the importance of these desirable qualities suggesting that good-enough entails a mindfulness quality. According to Winnicott's writings and others' descriptions of him, the quality of mindfulness as a way of being seemed to permeate his being and his interactions, offering us an illustration of the healing nature of therapeutic presence, the active ingredient in "helping others heal" (Siegel, 2010a, p. 1).

Relevancy for Social Work

"The primary mission of the social work profession" "to enhance human wellbeing and help meet the basic human needs of all people, with particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in poverty" (NASW, 2008, Preamble) is synchronous with the Buddha's message of the existence of suffering. The mission of social work is for those of us who choose this profession to learn how to be with this suffering and work towards alleviating it and improving quality of life. The realities of suffering—racism, poverty, violence, disabilities, discrimination, and other forms of social injustice—are devastating to live with and invoke deep compassion in the worker. Compassion which is an integral component of Buddhism opens us to the depth of suffering and calls us to action. This call to action resonates with the social work values of "pursu[ing] social change" (NASW, 2008, Social justice) and "help[ing] people in need" (NASW, 2008, Service). Buddhist author, John Makransky (2012) states, "Compassion is informed by the wisdom [mindfulness] that understands our basic situation: the inner causes of suffering and our potential for freedom and goodness" (p. 61). Germer & Siegel (2012) elaborate on the Buddhist understanding of how necessary it is for us to cultivate both wisdom (mindfulness) and compassion:

In psychotherapy, if we feel compassionately toward a patient but have no wisdom, we are liable to lose our compassion, become overwhelmed with emotion, lose the path through suffering, and conclude that the treatment is hopeless. Conversely, if we can wisely comprehend the multidetermined nature
of a patient's problem but are out of touch with the patient's despair, our supposedly wise therapeutic suggestions will fall on deaf ears. Our patients need both; they need to 'feel felt' (Siegel, 2009), and they need a realistic path through their suffering. (p. 34)

In this way, the wisdom and compassion, the fruits of meditation, can provide the grounding for social work practice.

"Fundamental to social work is attention to the environmental forces that create, contribute to, and address problems in living" (NASW, 2008, Preamble). The neuroscience findings of plasticity reveal how relationships and experiences shape one's development and growth, providing support for social work's emphasis of person-in-environment and illuminating how vital our work is as social workers to address the social, environmental, and emotional forces that contribute to these problems in living. This neuroscience finding of the import of relationships in an individual's development also has a synchronous link with the social work value of "understand[ing] that relationships between and among people are an important vehicle for change" (NASW, 2008, Importance of human relationships). We are tasked with understanding the familial, cultural, and societal complexities in order to "engage people as partners in the helping process" (NASW, 2008, human relationships) as we provide collaborative interventions that enhance self-empowerment, harness positive plasticity, and address the results of negative plasticity.

Another aspect of social work that is resonant with the neuroscience findings that relationships and experiences are instrumental in shaping who we become is the social work profession's value of "recognizing the strengths that exist in all cultures" (NASW, 2008, Cultural competence and social diversity). The formal and informal practices of mindfulness help deepen our self-awareness and build the capacity for being with our own range of affects and

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experiences with an attitude of acceptance and loving-kindness which translates to acceptance and loving-kindness towards others and an appreciation for our differences and similarities.

The social work value of "respect the inherent dignity and worth of the person" (NASW, 2008, Dignity and worth) has a strong resonance with Buddhism. One of the primary virtues of the Buddha's teaching is to take refuge in our own Buddha nature and see the "Buddha nature in all beings" (Kornfield, 2008, p. 290). This Buddha nature is "a recognition of our innate nobility (goodness) and the freedom of heart that is available wherever we are" (Kornfield, 2008, p. 20). Synchronous with social work practice, there is a recognition that ego defenses build up through the process of living and being with suffering; yet both the social worker and Buddhist-oriented psychotherapist acknowledge and see through these defenses to the essence and light that resides within each individual.

A final overlapping value between social work and Buddhism is the emphasis on integrity. The social work profession is grounded in a foundational base of integrity that includes "values, ethics, knowledge and [the] mission of the profession" (NASW, 2008, Integrity). Both social work and the Buddha's teachings recognize and address suffering. The concerns raised by Buddhist scholars, Buddhist teachers, and mindfulness-based clinical and research professionals revolve around the extraction of mindfulness from its Buddhist's roots. Mindfulness within the Buddha's teachings is nestled within the Eight Step Path which contain the steps out of suffering. A critical distinction delineated in this Eight Step Path is that "right mindfulness" "must be guided by right view, motivated by right intention, grounded in ethics, and be cultivated in conjunction with right effort" (Goldstein, 2013, p. 320). Wallace (2007) points out that mindfulness without these features is mindfulness as "bare attention without an ethical component" (p. 12). It has been noted that a sniper has a high degree of mindfulness in
the form of concentrated attention (Wallace, 2007); yet the mindfulness put forth and embraced by this thesis study is right mindfulness that is connected to the ethics, intention, and effort of social work and to the Dalai Lama's (2010) mission "to cultivate a universal responsibility toward each other and extend it to the planet we have to share" (p. 16).

Strengths and Limitations of Methodology

**Strengths.** There was an unexpected and significant synergy that emerged by bringing together mindfulness from a Buddhist perspective, Winnicott, and neuroscience. The synergy between neuroscience and mindfulness brought together the subjective, first-person knowing with the objective, third-person knowing showing how these two different ways of knowing complement each other--providing quantifiable evidence how the subjective experience of Buddhist meditation practices positively change brain structure and function. The findings from neuroscience on the relational and embodied brain provided a scientific framework for understanding the import of Winnicott's conceptualizations that he developed out of his lived experience as a pediatrician and psychoanalyst. Recognizing the significance of the early caregiving relationship and the particular relational sensibilities of Winnicott's description of the good-enough mother and his application of the mother-infant dyad to the psychotherapeutic context reinforces the developmental impact of relationships and the holding environment to the child and patient and offers support to the value of the therapeutic relationship to the change process in psychotherapy. Additionally, understanding the importance of relationships and experiences in shaping an individual's development and growth provides scientific underpinnings to Winnicott's notion of the provision of the good-enough holding environment for the discovery of the true self to emerge, demonstrates the value of meditation as an enriched environment to promote positive plasticity, and reinforces the "safe and empathic relationship" (Cozolino, 2002,
p. 291) established by the clinician as an enriched environment to support "psychological structure and the biological stimulus for rebuilding the brain" (p. 292). The synergy between mindfulness and Winnicott revealed an unexpected finding of the similarities between the meditative experience and the state of going-on-being. Both experiences are contingent on safety and or an internalized resource of ego support and both are also capable of building resiliency. The intersection of mindfulness and Winnicott also revealed a man who appears to embody the quality of mindfulness and presence. Winnicott's essential discipline of "enter[ing] into every situation undefended by his knowledge, so that he could be as exposed as possible to the impact of the situation itself" and that this essential discipline "added a dimension to his life as vital to him as fresh air" (Winnicott, 1989, p. 2) is an exhilarating example of Zen mind, beginner's mind and offers a glimpse into the mindfulness he brought into psychotherapy. There was an unexpected synergy with the paradoxes within Buddhism and Winnicott, revealing the spaciousness that comes from mindfulness to be with ambiguity and uncertainty, to ground oneself in dharma and a direct practice to cultivate one's own self-awareness rather than adhering to dogma, and to delight in the authenticity, creativity, and spontaneity that springs forth from this ground of theory and open presence to be with the unfolding of each moment anew.

A final and significant unexpected synergistic finding between mindfulness, Winnicott, and neuroscience was that a parent's mindful way of being, a clinician's mindful way of being, and our own mindful way of being has the power to soothe the autonomic system's survival responses and re-engage the prefrontal cortex which is the gateway to the mindfulness qualities of wisdom, compassion, a larger perspective, and freedom from suffering.

**Limitations.** An overarching limitation to this theoretical thesis is the realization that to understand the phenomenon of mindfulness from a Buddhist perspective takes years of scholarly
study. While I brought engaged interest and curiosity to my exploration of this phenomenon, I experienced times of overwhelm and confusion, giving substance to the challenge of being with the paradoxes that I was uncovering and receiving comfort from Kornfield's and Winnicott's counsel to cultivate a spaciousness, acceptance, respect, and tolerance for paradox. The reality of the time constraint of this thesis project was an invitation to embrace Winnicott's notion of good-enough as the more I learned about each of these lenses, the more I realized that I had barely scratched the surface of knowing and understanding. Thus, although the findings in this study are not generalizable, there is a deep well of richness within each of these lenses to drink and be nourished by.

There is also the recognition that even greater insight and understanding can come from a continual exploration of the synergy between these lenses. Although I have had a personal meditation practice for some time, it would have been illuminating for me to be writing this thesis having had the direct experience of attending a meditation retreat where one is immersed in Dharma teachings, silence and extended meditation sessions, meetings with a meditation teacher, and the experience of a Sangha. It would have been equally illuminating if I would have had the opportunity to talk with any of the scholars whose research and writings about Winnicott so effectively helped me understand him as a person and a clinician.

**Future area of study.** There is an emerging focus on self-compassion within the mindfulness field which suggests a future area of study. Compassion was highlighted in the Dalai Lama's request for study and the application of loving kindness and compassion practices beg for an exploration of how our early relationships and experiences impact the emotional valence with which we hold our experiences and how to transform this valence with compassion and loving-kindness practices.
Conclusion

Mindfulness from a Buddhist perspective offers a rich ground of learning and meaning which was explored in this theoretical thesis through the psychodynamic lenses of D.W. Winnicott and neuroscience. Both an operational and more comprehensive definition of mindfulness was presented, highlighting that mindfulness is a way of being and can not be understood as a concept; it must be experienced first-hand to be known. This direct experience with mindfulness is cultivated through formal practices of Buddhist meditations that are described within the Buddha's teachings. Mindfulness as a daily practice is the seed that grows into the fruit of mindfulness as a life of awareness, a way of being (Hahn, 1975).

Key aspects of mindfulness served as guideposts for understanding the phenomenon of mindfulness from a Buddhist perspective, revealing an unexpected and significant synergy between these three lenses and with the values and ethics of the social work profession. There was an appreciation of the validity and value in the confluence of the objective, third-person knowing from neuroscience with the subjective, first-person experience of felt reality. The contemplative neuroscience findings provided quantifiable evidence how our subjective experience has the power to harness our minds to change our brain's structure and function. These findings validate meditation as an enriched environment to promote positive neuroplasticity. Additionally, the salient finding of neuroplasticity that our brains are shaped by experiences provides scientific underpinnings for Winnicott's conceptualizations and provides scientific validation for the importance of the therapeutic relationship in the psychotherapeutic
change process. Moreover, understanding how both relationships and experience shape an individual's growth offer support for psychotherapy as an enriched environment.

Mindfulness within psychotherapy was presented in broad strokes, integrating safety and internalized resources, notions from Winnicott and neuroscience, when applying mindfulness explicitly; however the predominant message from Winnicott and experienced mindfulness clinicians was an emphasis on the implicit application of mindfulness. The resounding recommendation from experienced mindfulness clinicians was to engage in a personal meditation practice as the clinician's embodiment of mindfulness potentiates the desired qualities intrinsic to a successful therapeutic relationship. The particular relational sensibilities of Winnicott's good-enough mother also reflect the importance of these desirable qualities suggesting that good-enough entails a mindfulness quality. An exploration of Winnicott and his notions revealed an embodiment of mindfulness, offering a window into a clinician's mindful way of being in psychotherapy. According to Winnicott's writings and others' descriptions of him, the quality of mindfulness as a way of being seemed to permeate his being and his interactions, offering us an illustration of the healing nature of therapeutic presence, the active ingredient in "helping others heal" (Siegel, 2010a, p. 1).

Mindfulness is integral to the Buddha's teachings which illuminate the nature and causes of suffering and the pathway to wisdom, compassion, and recognition of our innate goodness. Suffering, which is an inevitability of life, expresses itself within our autonomic nervous system and can cause us to lose access to the higher cortical functions of wisdom and compassion. An overlapping finding in studies of meditation and secure attachment revealed the activation of the prefrontal cortex, offering insight into the associated functions that facilitate integration and re-engagement with this prefrontal region. The essence of these functions is presence, connection,

There is a strong resonance with the Buddha's teachings and social work values. Integral to the Buddha's teachings is "a fundamental reverence for life and a commitment not to cause harm" (Brach, 2012b, p. 49), "to act with stewardship for the things of the earth" (Kornfield, 2008, p. 333), and to cultivate "the spontaneous integrity of the awakened heart," a heart "free to love," "unshakeable" in authenticity and kindness (Kornfield, 2008, p. 333). Mindfulness is the gateway to this awakening and the fruits of meditation, wisdom and compassion, can provide the grounding for social work practice.
References


Appendix A: Footnotes

Appendix B: Copyright Permission

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