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Benjamin White
In the Environment:
Clinician Perspectives
on Nature and
Psychological Health

ABSTRACT

This qualitative study explores the relationship between nature and psychological health from the perspectives of 12 clinicians from a variety of training backgrounds. During 30 to 45-minute interviews, participants were asked a variety of questions about their personal and clinical experience as they have informed their perspectives on the question: *How does nature influence psychological health?*

Major findings of the study showed there to be a significant difference between the importance of nature in clinicians' personal lives and nature's role in clinical practice. Findings indicated that although nature was important to participants' personal psychological well-being that nature was not widely utilized in clinical treatment. Findings also indicated that nature is a powerful clinical tool in some treatment relationships providing benefits for both client and therapist, but that there were limitations to whom nature is effective in treating and to which issues nature was most effective in addressing. Findings are interpreted from psychoanalytic perspectives, which are also discussed at length in the literature review.

IN THE ENVIRONMENT: CLINICIAN PERSPECTIVES ON NATURE AND
PSYCHOLOGICAL HEALTH

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

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2013

ACKNOWLEDGEMENTS

I owe a debt of gratitude to my research advisor Claudia Bepko, who despite geographical distance and having several other master's candidates to advise, corresponded frequently with me and helped me optimize the value of this study and my summary of it. Thank you, Claudia, for keeping me firmly rooted in my purpose here as I also wandered into the theoretical realm.

Undoubtedly, my parents played a role in my interest in nature while also managing to keep me focused on my education. By shuttling me back and forth between their house in the Catskills and a small apartment in Manhattan, they made sure I always had one foot in the country and one foot in the city, bridging whatever gap there is between the two.

I'd also like to thank all the wonderful teachers and professors I've had in my life, dating all the way back to The Trevor School in New York City, The North Carolina Outward Bound School and through my time at Colorado College and at the Smith College School for Social Work.

I owe a deep gratitude to the natural world, to the Elk Mountains of Colorado and to the Aspen Center for Environmental Studies where I was afforded the chance to live in the mountains and encounter the many wonders contained within the natural world and within myself. I extend the same gratitude to the countless partners in adventure who have dared to venture into the wilderness with me in all seasons and in all conditions.

Lastly, I greatly appreciate all of the participants in this study who graciously volunteered their time and drew from their personal and professional experiences to discuss this topic with me, often without ever having met in person.

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CHAPTER I

Introduction

I once knew a man who told me of how nature saved his life. He recounted his story to Dr. Gerald Stein who tells it as follows:

He had no memories at all before age six but he vividly remembered a flower in the dark woods. “I was a very unhappy little boy. A darkness hung over me of which I could not fathom. My life seemed hopeless. One beautiful spring day, the other boys were playing baseball and the girls were all paired up in friendships. I was alone and did not want to play or talk. I felt worse and worse. I looked into the dark wood adjacent to the school; the dark woods corresponded to how I felt about myself. I decided that I would walk into that dark woods and keep walking until no one could find me, and I could not find my way back. I had decided that death was preferable to my awful life. I started wandering into the thick woods, my mood feeling calm as my darkness was mirrored by the dark shade of the high trees. Then suddenly, a shaft of light came through the branches and shown on a beautiful flower at the base of a small tree. I stopped in utter amazement at the beauty of that flower. After a few moments, I turned and started back toward the playground. After that things got progressively better for me. My grades turned around. Slowly, I made friends. Got lots of psychotherapy, eventually a cherished marriage, a wonderful career. Yet everything in my life has hinged on that one moment, where a shaft of sunlight shown on a small flower.” (Stein 2002, *Human/Nature*, 03:57)

I find this story moving and honest in a way that transcends explanation here in this brief introduction. Perhaps in the later chapters and through the data of this study, will begin to shed

some light through the dark forest myself, and illuminate some obscured qualities of the interplay between nature and the human mind.

I undertook this study because this story has power, and because nature has power. I view it as a great service to the field of social work to improve our understanding of the power that nature has to influence our psychic processes. Why does this story resonate? Why do societies verge on hysteria before natural weather phenomena? Why do jagged mountains and steep cliffs conjure a great many thoughts and emotions? Why do rivers and water have their own effects on the mind? How is it that a shaft of sunlight shown upon a small flower can change the course of a man's life?

I've also undertaken this study because nature has changed my life. At age 18, as a freshly minted "adult" confused, excited and scared about the next phase of my life, I opted to spend a semester in the wilderness with Outward Bound, traversing the Andes mountains, paddling the length of the Everglades and exploring the deep woods of North Carolina's Blue Ridge Mountains. I could not describe exactly what drew me to that experience at the time but I felt deeply that it would provide something that I desperately needed. It did just that.

Travelling with the same twelve people for 3 months, wearing thick fleece in 80-degree weather to keep the Everglades mosquitos away, carrying 1/3 of my body weight on my back day in and day out, navigating glaciers as a member of a rope team; the challenges I faced were innumerable and constant. On our first night, we found ourselves atop a steep ravine after dark, still two miles from camp. I was tired and hungry, uncertain of my willingness to continue. On my way down the ravine I slipped and a branch hit me square in the face, sending waves of emotion through my body. I was angry, but who was to blame? There was no escaping the reality

that my feelings were my own and that I had no choice but to negotiate them, just as we had no choice but to negotiate the steep, vegetated ravine to reach a flat place to sleep.

During those three months away from “civilized” society nature provided the venue for a great many powerful encounters. Humility shrunk my ego as I stood beneath a massive rock face. Accomplishment and grandiosity were embodied in the form of an active volcano and were granted to me as I stood on its rim, staring into its fiery depths as it grumbled and spat. As I walked tirelessly on the rocky ground, I learned the subtle difference between genuine hunger and the longing for emotional satiation. Lightning ignited fear allowed me to know it, to taste its taste, to feel the palpitations of my heart as the looming thunderstorm came closer. I became intimate with my fear, expertly watching and feeling its effects on my mind and body and through this process, I could not deny the obvious connections between my present experience and my past. A warm, sunny pastoral meadow instilled a sense of comfort after long days in the forbidding high-country. Nature was not simply the background, nor the stage on which these scripted scenes were enacted. It was a dynamic system of objects with which I interacted and that changed me as I did them.

I participated in the cycles of life, death and renewal and was brought closer to the reality that I had obscured from myself until those encounters. Looking back, the way I remember the experience has some similarities to how one might describe certain psychotherapies. My defenses were confronted and I had no choice but to notice their function in my life and the ways in which they served to protect me from reality. In the end, many of these defenses were still there in some form but I was left with a stronger sense of how and why they came to be and an ability to loosen my grasp on them when necessary.

Surely, my experiences were a result of the group of individuals with whom I was traveling and living and not solely due to nature. A well-structured and intentional curriculum also contributed largely to my experience. However, my experience would have been a wholly different one had it not occurred within the rich, powerful and dynamic set of symbols that are present in nature—the color of the early-morning southern sky, and the Southern Cross fading into an orange and purple sunrise—the flowing rivers, unique in the subtleties of their every square inch, and in every fraction of a second—somehow, these images are what stand out in my memories. They contain the rich lessons about myself that (I hope) I have not forgotten.

So it is with a strong personal bias and deep curiosity that I undertake this study on the value of nature to psychological health. The study gathers information from practicing clinicians--trained experts in the field of mental health--in an effort to *begin* to explore the question: *How does nature influence psychological health?* In exploring this question, I hope that this study will provide a service to the field of clinical social work by illuminating the clinical value of nature.

Given social work tradition's strong focus on humans "in the environment" (NASW 1996), it is important to consider whether this environment extends beyond the social environment to include nature. The tradition of social work, although implicitly accepting of the importance of a healthy relationship to nature, is largely focused on social, cultural and interpersonal relationships and the internal psychic processes that result from the interaction of people with their human environments. Any inquiry into the role of the human relationship to nature and the non-human environment is valuable both to the field and to the future of individual and community mental health. This inquiry seeks to broaden the field of social work's resources for understanding humans "in the environment" by focusing on the interplay between nature and the human psyche.

For the sake of performing this study, it is necessary to define the term “nature”. It should first be noted that the word “nature” is broad, encompassing a multitude of possible meanings and conjuring infinite associations within people. Due to the vastness and multiplicity of the subject to which “nature” refers, some amount of ambiguity will necessarily be a part of any word that is chosen. Within the confines of this study the term “nature” will denote the following: the interconnected system of plants, animals, and meteorological and geological bodies and phenomena that compose the environment with and within which human beings exist and interact.

As psychoanalyst Harold Searles (1969) wrote: “Human beings have complex relationships to the non-human environment that have great significance for human psychological life. We ignore the implications of the non-human environment at great peril to our psychological well-being.” (p. 7). This study will provide valuable insight from clinically trained individuals about the value of nature to psychological wellness. As clinically trained, practicing experts in the field of mental health, clinicians’ experiences and opinions on this topic are of great interest to the body of knowledge about this topic. This study aims to uncover the details of this dynamic relationship between the nonhuman environment, “nature,” and human mental wellbeing by surveying experts in the field of mental health and wellness. In so doing it will inform the Social Work tradition as to how it might better achieve its mission and provide invaluable information to a wide range of people.

Chapter II

Literature Review

The Nature Writers

“In nature and the language of the sense
The anchor of my purest thoughts the nurse
The guide, the guardian of my heart, and soul

Wordsworth, 1798, Lines Written Above Tintern Abbey

Nature has long been portrayed for its therapeutic and healing qualities. The theme of purity, here expressed by Wordsworth in a 1798 publication, is also present in many other writings from the likes of Thoreau (1854) and Emerson (1836). Nature’s restorative qualities are so widely described and universally heralded that any attempt to summarize these writings seems feeble, as though a mass of mere words will always fail to capture the essence of nature’s power and influence over our mental lives. Nonetheless a brief recount of some of the most prominent accounts of nature’s importance to our health is necessary here. The philosophical writings of nature’s influence on our health arose from a time when psychological theories were in their infancy. During the time of nature writers like Thoreau, the now debunked field of phrenology was still widely popular. Although phrenology may have been a precursor to modern psychology, it’s prevalence was indicative of an understanding of the human mind that that offered limited insight, and limited vocabulary through which to explain Nature’s influence on our psychological and general health.

Nature writers such as Thoreau and Emerson made valiant efforts to describe nature’s importance, largely using their own direct experiences as research. Thoreau writes explicitly of his experience of nature’s curative and cleansing powers in his 1854 account of living on Walden

Pond: “What is the pill which will keep us well, serene, contented? Our great-grandmother Nature's universal, vegetable, botanic medicines, by which she has kept herself young always... let me have a draught of undiluted morning air. Morning air!” Thoreau famously had relocated to Walden Pond seeking a pure experience of the wilderness. The site now considered a suburb of Boston. Yet despite Walden Pond's finite time as a pristine wilderness Thoreau's written account of his experiences at Walden Pond remain some of the most enduring, first-hand accounts of Nature's importance for human health.

John Muir's writings are perhaps equally notable. Similar to Thoreau, Muir drew on his own experience to write what are still considered to be some of the most inspired accounts of nature's affect on the human mind and body:

Walk away quietly in any direction and taste the freedom of the mountaineer. Camp out among the grasses and gentians of glacial meadows, in craggy garden nooks full of nature's darlings. Climb the mountains and get their good tidings, Nature's peace will flow into you as sunshine flows into trees. The winds will blow their own freshness into you and the storms their energy, while cares will drop off like autumn leaves. As age comes on, one source of enjoyment after another is closed, but nature's sources never fail.
(Muir, J., *Our National Parks*, p.56)

These efforts to capture in words, the effects of nature on the human mind and body were on par with the times in which they were made. Lacking sophisticated scientific methods for documenting nature's effects, the nature writers, as they are known, turned to themselves as subjects in their own research. In the modern world of empirical research we might view these writings as early qualitative studies, with a sample size of $N=1$ and wherein the researcher was the sole participant. While this particular study incorporates digital audio recorders, the early

nature writers used only pen and paper and, unfortunately for this researcher, the particular method of this study does not involve several months of wandering through the wilderness of the Sierra Nevada.

As culture has become more distanced from nature and continues along that path (Jung 1950), writing about nature has tended to focus more on the effects of a *loss* of nature. The effects of this loss have been mourned by more contemporary nature writers, some of whom have begun to describe the symptoms of our loss of connection with the environment that sustains us. Similar to the ways in which *Maternal Care and Mental Health* (Bowlby 1952) illuminated the importance of maternal attachment to human development, the documentation of the effects of a “loss of nature” illuminate a different perspective of nature’s importance to our psychological health by underscoring what happens when we are deprived this relationship. As Bowlby might have observed the importance of the infant-mother dyad by documenting the child’s downward spiral after separation, we might observe the importance of nature by similarly documenting a negative trend in psychological health in response to a loss of nature.

Richard Louv (2005) coined the term “nature deficit disorder” to encompass the many negative effects of depriving human beings from contact with nature. Louv (2005) lists these effects: “...the human costs of alienation from nature, among them: diminished use of the senses, attention difficulties, and higher rates of physical and emotional illnesses” (p.36). Louv further describes nature’s importance to communities and society at large, echoing the long-since-spoken words of the late Frederick Law Olmstead (Censer, 1986) by lauding the positive effects of parks and open space within cities. To Louv, nature is essential for mental health and the effects of a demeaned relationship to the natural world are worthy of a classification as a

disorder, akin to what one might find in the Diagnostic and Statistical Manual. If only Medicare would reimburse a trip to the beach...

Last Child In The Woods was published in 2005 and Richard Louv was not the first person to warn of the effects of a loss of nature. Neither was Rachel Carson (1962), who wrote of these ill effects in her 1962 *Silent Spring*. Warnings of the ill-effects of a separation from nature on mind and body have been widely stated, but Carson's is perhaps one of the most widely known and characteristic of such warnings: Rachel Carson writes: "A grim specter has crept upon us almost unnoticed, and this imagined tragedy may easily become a stark reality we all shall know". Within Carson's dark metaphors we hear echoes of a deep depression, perhaps a looming sense of doom as is described as a common symptom of a panic attack or Panic Disorder (APA, 2000). The "grim scepter" of which she speaks conjures images of death knocking on our door and to Carson, this death is concurrent with a loss of nature. (Carson, 1962, p.3).

Human Relationships In Mental Health

Throughout history, there have also been those who have expressed the opposite opinion that nature is not important to psychological health, and no exploration of this topic would be complete without mentioning the opposing view. Despite widespread philosophical writing about nature and the recent research about nature's efficacy in certain treatment modalities, the vast majority of literature and research within the fields of Social Work, Psychiatry and Psychology are focused on interpersonal aspects of psychological and therapeutic processes. Much attention has been paid to the importance of primary caregivers, the influence of family and social structure, race, class, and other human-centered variables as they impact psychic structure and development. Influential works from theorists such as Bowlby, who is often credited as one of

the founders of modern attachment theory, exhibit this focus on the psychic impacts of the human environment:

...what is believed to be essential for mental health is that the infant and young child should experience a warm, intimate, and continuous relationship with the mother (or permanent mother substitute) in which both find satisfaction and enjoyment. Give this relationship, the emotions of anxiety and guilt, which in excess characterize mental ill-health, will develop in a moderate and organized way...It is this complex, rich and rewarding relationship with the mother in the early years, varied in countless ways by relations with the father and with siblings, that child psychiatrists and many others now believe to underlie the development of character and mental health. (Bowlby, 1952, p. 11).

Object relations theorists extrapolate from the importance of these early attachment relationships to provide insight into the ways in which individuals relate to others throughout the life-course (Klein, 1964). The importance of early attachment relationships is also central to the tradition and practice of Self-psychology, which follows from the writings of Heinz Kohut and his focus interpersonal relationships as they pertain to what he called “selfobjects” and the emergence of a cohesive self (Kohut, 1977). Throughout psychoanalytic traditions and non-psychoanalytically oriented theories as well, the conception that human relationships are paramount in psychic development has provided important theoretical contributions that have driven a significant amount of mental health treatment and assessment.

Psychoanalytic treatment in particular is often focused on the “here and now” dynamics between therapist and patient (Mitchell, 1988). Even amid the relational shift in psychoanalysis and the ongoing debate about technique and intersubjectivity, focus has remained on the

necessity of interpreting the transference within treatment (Kernberg, 1997) and on the importance of the human relationship in psychotherapy.

Similarly, the Social Work tradition has been focused on the importance of human environments, highlighting the importance of the social and cultural effects of human environments. Much of common Social Work theory and practice may be aptly characterized as having roots in such influential works on the social construction of thought and knowledge such as Berger and Luckman (1971) wherein the authors write: "...that reality is socially constructed and that the sociology of knowledge must analyze the process in which this occurs." (p. 13). The relative dearth of clinical research on nature may be interpreted as an implicit statement contrary to the importance of nature and the non-human object matrix that humans interact with, even if there is little theoretical or empirical evidence that explicitly states this opinion.

There have also been direct claims against nature's relevance to psychological health. Although scarce, these explicit statements of the futility of nature expand on the implicit statements that mainstream mental health practice makes by omission. On behalf of the Ayn Rand Institute, Michael Berliner argues against nature's importance as from the perspective of "objectivism", claiming the apparent antithesis to any nature-based treatment. Although the Ayn Rand Institute's mission does not mention nature specifically, Berliner's 1996 essay *Against Environmentalism* makes a clear argument that nature is *not* important to human wellness: "Such is the naked essence of environmentalism: A more malevolent, man-hating philosophy is unimaginable." Berliner argues that human wellbeing is born from an *entirely* human source, independent of the environment. To Berliner, holding regard for nature's role in our physical and psychological health and acting to protect these resources (environmentalism) amounts to a

disregard for humanity. Berliner goes on to write: “to save mankind requires the wholesale rejection of environmentalism as hatred of science, technology, progress, and human life.”

In what would seem to be a similar argument, we see philosopher Slavoj Zizek extrapolating on the concept of “Ecology Without Nature” (Morton 2007, Zizek 2011) in the 2008 documentary *The Examined Life* (Taylor 2008): “The answer is not to return to these roots in nature... it is to cut off, even more, these roots. We need to become more artificial.” Zizek symbolically delivers these words amid the unsightly happenings at a garbage dump. Standing in a heap of trash he picks up a handful and proclaims: “The answer to our problems is right here. It is not somewhere out in the woods!” However despite the surface appearance of Zizek and Morton’s perspectives on the human relationship to nature, their views actually highlight a more nuanced perspective on the human relationship to the concept of “nature”, which, according to Zizek “does not exist.”

In a subsequent lecture presented in Athens, Zizek applies Jacques Lacan’s concept of “the big Other” to nature, reminding us that the Lacanian perspective denies the existence of any such force in the world: “The first premise of a truly radical ecology should be, “Nature doesn't exist.” ... So again what we need is ecology without nature, ecology that accepts this open, imbalanced, denaturalized, if you want, character of nature itself.” (Zizek 2012). This perspective remains somewhat radical, positing itself directly against the majority of writings about nature and nature’s utility. Zizek also highlights the inherent difficulty that this review of literature and this study as a whole: to define “nature” at all is problematic and implies a certain degree of separateness. Ironically, or perhaps fittingly, this trend toward separation is a central impetus for this study. Similarly, this feeling of separation from nature as well as the consequent

desire to connect to it and the concordant “soothing” affects of that connection have been the subject of a great many writings and studies for hundreds of years.

So which side of the spectrum does the answer lie? Whose perspective holds water? That of the nature writers or of the nature naysayers? Fortunately, improved research techniques in the psychological sciences have begun to answer this question, offering empirical support for the claims that have long-been made by nature writers and theorists such as Richard Louv and Rachel Carson, who claim that nature is essential for psychological health and that a faulty relationship to nature poses a mental health risk.

Nature In The Numbers: Empirical Research

The American Horticultural Therapy Association (AHTA) and the AHTA Research Work Team have contributed a solid body of empirical research about nature’s curative powers. Studies from AHTA indicate benefits of interventions such as “exposure to natural settings” and engagement in regular gardening with a variety of populations from veterans with PTSD to elderly patients in long-term care. Wilson and Christensen (2011) showed a statistically significant negative relationship between gardening and depression among patients with disabilities. Patients who identified as “current gardeners” scored lower on a tested measure of depression. In a study of 31 hospitalized children, Said and Bakar found that survey responses from patients and caregivers indicated that the hospital garden increased the patient’s cognitive, physical and social functionality leading to restoration (Said and Bakar 2007).

Other studies published in the *Journal of Therapeutic Horticulture* list data that indicates how and why nature might be curative. In a qualitative evaluation of a gardening and wellness program at a retirement community, Slavens (2008) found that respondents consistently reported

that gardening improved their sense of hope, provided them opportunities for growth and learning and a connection to spirituality.

In a 2012 publication Selhub and Logan eloquently trace the evidence of nature's importance to human psychological health through its many transformations. *Your Brain on Nature* (Selhub and Logan 2012) begins by focusing, as I have here, on the contributions of the nature writers. Quoting Thoreau and Muir specifically, Selhub and Logan laud these contributions as early expressions of some indescribable and innate connection that the human mind and body have with the natural world. Citing the "biophilia hypothesis" posed by E.O. Wilson (1984), Selhub and Logan (2012) assert nature's presence within our minds at a biological level. "It's within our very DNA" (pg. 2), they claim, drawing on research conducted by Robert Ulrich in the 1980s that showed the effects of natural environments on people's ability to recover from stressful events. Ulrich found that natural environments facilitated one's ability to recover from a stressful event such as an academic exam. A Similar recent study by Bernstein (2012) has showed that taking twice-daily breaks outdoors in a natural setting can improve a worker's productivity and overall mood throughout the workday.

This empirical approach to nature research has also yielded an important, biologically based perspective on nature's role in psychological health. Thompson, Roe, Aspinall, Mitchell, Clow and Miller (2012) focused on the effects of "green space" on salivary cortisol levels, demonstrating significant correlations. Their findings outline "significant relationships between self-reported stress ($P < 0.01$), diurnal patterns of cortisol secretion ($P < 0.05$), and quantity of green space in the living environment" and their data analysis indicated that green space in the living environment as a "significant and independent predictor of the circadian cortisol cycle." This study also cites "particularly strong" evidence for positive associations between experience

of natural environments and mental health. Citing several other studies, the authors highlight nature's effects on psychological restoration, mood augmentation, improved attention and improved stress and anxiety.

The study also makes reference to recent research on nature's impact on attention, a subject that has caught the eye of researchers interested in adolescent attention disorders. In a study of 17 children with Attention Deficit Disorder, Taylor and Kuo (2009) observed that children with ADHD concentrated better after walking in a park than after walking in an urban setting ($p = .0229$) or in a neighborhood ($p = .0072$). They concluded that: "Doses of nature might serve as a safe, inexpensive, widely accessible new tool in the tool kit for managing ADHD symptoms."

The push toward evidence-based practice has also led to modalities that incorporate nature-based treatments such as so-called "wilderness therapy" organizations to conduct outcome-based empirical studies in an effort to support the modality with a firm evidence base. Although the wilderness therapy modality is a carefully crafted experience that involves more than simply bringing someone into nature, the natural setting is generally accepted as an important part of its efficacy (Russell, Hindee & Phillips-Miller 1999). These empirical studies of the wilderness therapy modality have thus provided valuable evidence of nature's importance to psychological health. The Outdoor Behavioral Healthcare Cooperative (OBHC) was founded in 1997 as a means of researching and collaborating about best practices within the modality and has since provided a valuable base of research about the efficacy of wilderness therapy and the mechanisms by which it achieves its outcomes in relationship to natural settings.

Russell (2002a, 2002b, 2003a, 2003b, 2005, 2006, 2007) concluded that wilderness therapy achieved significant outcomes for adolescents using the Youth Outcome Questionnaire

(YOQ), a measure of behavioral and mental disorder. Russell's research documented the responses of 858 adolescents and their families from 7 different wilderness therapy programs over the course of 12 months, only a brief period of which included the actual treatment intervention. Russell found statistically significant average reductions in YOQ scores after the intervention of wilderness therapy as compared to pre-intervention scores by the same participants. The study also concluded that the reduction in YOQ scores, and hence in the level of behavioral and mental disorder, increased only slightly over a period of 12 months.

Studies such as Davis-Berman and Berman (1989, 2008) also support the efficacy of wilderness therapy, noting particular efficacy in improving self-esteem and reducing behavioral symptoms. Many other studies support these findings consistently and modern research methodology has afforded researchers the opportunity to explore the role of nature on the human psyche and establish a growing base of evidence to support the long lauded claims of philosophers and nature writers. There is enough empirical evidence at this point, to draw the conclusion, with some degree of certainty, that nature plays a powerful role in human psychological life.

Despite the consistent empirical support for the importance of nature, the role of nature within these modalities remains somewhat of a mystery and eludes being pinned down through empirical inquiry. Empirical studies of nature-based therapies are challenged to isolate nature as a variable in research. Research about *how* nature interacts with the also enters territory that seems difficult to grasp with empirical methods. Thus there is little beyond anecdotal evidence of *how* or *why* nature is effective in treating mental illness or common psychological discomfort. It seems a bit like the proverbial "black box" phenomenon; things go in and things come out different, but nobody really knows what goes on "inside the box."

Inside Nature's Black Box

“In fact, by intentionally selecting a difficult and challenging environment in which to work, the person-environment transactions may be intensified which may contribute to the speediness of therapeutic change (Berman & Davis-Berman, 1989). It is through such environmentally-based approaches that the uniqueness of the person-in-situation truly comes forth, which serves to define and distinguish the social work profession from other professional groups (Berman and Berman 1989, p. 10).

According to Berman and Berman, the therapeutic function of nature may be in its ability to provide a genuine challenge. The value of wilderness it's ability to make things difficult. These difficult and humbling experiences encountered on Wilderness Therapy programs are relied upon for therapeutic results. This description of nature's utility only begins to offer an explanation for how nature might function therapeutically and the glaring questions about *how* nature interact with the human psyche remain.

We can answer this question by stating the obvious—that nature provides a setting where one's immediate needs are not necessarily provided for—but a clinically adequate explication of this phenomenon needs a description of the internal process that occurs as a result of being vulnerable that way.

Ecopsychology. To begin to answer this question we can turn to the valuable contributions of the field of ecopsychology, which has focused on nature as an essential part of our existence since its early writers in the 1960's. Andy Fisher (2012) summarizes Ecopsychology “as an attempt to illuminate the innate emotional bonds between person and planet.” (Fisher, 2012, pg.1). The position of Ecopsychology may be summarized as the belief that the health and wellbeing of humans and nature are interconnected. Fisher (2012) further

highlights the contributions of Harold Searles and Carl Jung, among others, in discussing the importance of the environment at a very basic level. Carried to its logical end, ecopsychologists might argue that existing in a harmonious relationship with nature is essential to our psychological health. The tradition is built on the foundation laid by the likes of E.O. Wilson, whose “Biophilia Hypothesis” provides a firm basis for the theories of ecopsychology.

Ecopsychologists believe that the health and integrity of humans and the natural environment are inextricably linked, claiming further that doing harm to the environment is causing humanity deep physical and psychic damage, mostly on an unconscious level. Even further, strict ecopsychologists might argue that there is no separation or distinction between humans and nature and that our assumption of ourselves as different may be both a symptom and cause for our spiritual, physical and psychological ills. According to the tradition of ecopsychology, healing those ills would require us to experience our connectedness with the environment on many levels. We might simplify the summary of why nature is important to our psychological health according to ecopsychology, by saying, as Selhub and Logan note, that nature “is within our DNA”. Simply put, it just is; end of story. While compelling, and certainly an interesting beginning into the mechanisms by which nature works on our psyches, ecopsychology, like many traditions before it, has not yet met the rational bore the burden of empirical knowledge. There is still much room to explain the workings of nature and the mind using clinical theory.

Psychodynamic and psychoanalytic theory: *Object Relations*. Applying modern ecopsychology to childhood nature education David Sobel posits the value of nature as offering opportunities for the possibility for play and exploration. He harshly criticizes traditional nature education for its “look don’t touch approach” and in so doing, exquisitely captures the developmental importance of a child’s need for play and fantasy (Sobel 2012):

Children can look at it and study it, but they can't do anything with it. The message is: Nature is fragile. Look, but don't touch"... Education that originates in children's innate play tendencies in the natural world; supports and allows wild nature play; recognizes the importance of hunting, gathering, collecting, and, when appropriate, consuming the natural world; encourages adults and children to explore and learn together so adults can model attention and respect; and supports children's appetite for imagination and fantasy... As John Burroughs once said, "Knowledge without love will not stick. But if love comes first, knowledge is sure to follow." It's our responsibility as parents and teachers to make sure that love comes first" (Orion Magazine, *July/August 2012*, p.9)

While David Sobel is neither play therapist nor psychoanalyst, anyone with psychoanalytic training would likely notice the connections between Sobel's argument and D.W. Winnicott's seminal work: *Playing and Reality* (1971) that is credited with significant contributions to the object relations tradition within the field of psychoanalysis. Sobel's argument can be interpreted as a modernized, nature-oriented version of Winnicott's work. Sobel's words are simple, profoundly human, and obviously parental (much of what I have omitted here are anecdotal accounts of being in nature with his daughter). Winnicott (1971) writes:

...It is play that is the universal, and that belongs to health: playing facilitates growth and therefore health; playing leads into group relationships; playing can be a form of communication in psychotherapy; and, lastly, psychoanalysis has been developed as a highly specialized form of playing in the service of communication with oneself and others (p. 41).

Winnicott saw the importance of a child's relationship to the external objects that comprise his or her world. Failures in those relationships amount to trauma and always have

significant implications for a child's development, particularly the child's conception of him or herself within the world. Winnicott was concerned with the effects of how an environment receives and responds to a child, noting that an environment that is constantly rejecting of a child will pose a great threat to the child's development. The environment's ability to withstand and tolerate a child's fantasies--destructive, loving and otherwise--is essential.

Applying Winnicott's theories on the importance of play to Sobel's argument about the importance of nature, nature's psychological value may lie in its ability to tolerate our fantasies. If a child wishes to build a sandcastle, the sand does not protest, rather, it allows the child to do with it as he wishes, creating a veritable "sand kingdom" and concurrently affirming the child's omnipotent fantasy. The only protester within nature might be the predictable incoming tide, but such a trauma will likely not overcome the child unless he has been subjected to many other disappointing and devastating experiences. As the tide washes over the kingdom's walls, perhaps the child's sadness will be overcome by his desire to do it better next time. He may consider working with the water, constructing his next kingdom so that the incoming tide will serve his purpose of filling the castle's moat and protecting the fair princess. Whatever his fantasy may be, nature willingly provides the stage on which it is enacted and the actors who are his stars. With the scene set and the cast in order he might direct the powers of the world and defend against any feelings of insignificance.

John Bowlby is also credited with significant contributions to Object Relations psychology. He is often mentioned in the same breath as Winnicott and is credited with major contributions on theories of human attachment. In controversial studies, Bowlby documented the effects on children who are separated from their mothers for varying periods of time. By documenting the ways in which his subjects responded to absences of the mother, Bowlby was

able to make definitive and sweeping statements about the importance of the quality of childhood attachment to caregivers (Bowlby 1969). Ainsworth (1978) clarified the effects of attachment relationships and further categorized the ‘attachment styles’ that follow from early attachment relationships. Ainsworth observed children in what she called the “strange situation”, she observed a child’s behavior in relation to being left alone or left with a strange person. She concluded that the child’s reaction to the strange situation was indicative of the child’s attachment style to his caregiver. In short, observing how the child related to a strange environment spoke volumes about the child’s internal process and psychological constellation. In relation to nature’s importance to our psychic lives, attachment theory can offer us valuable insight into the collective and individual processes that are at play as we relate to nature. Just as observing a child’s relationship to a stranger or to being alone can inform our understanding of a child’s internal process, observing how children relate to nature can be equally informative. Every interaction that a person has with strange nature is evidence of their psychodynamic processes. I once had a professor who liked to remind us that “the unconscious is always at work.” While psychodynamic theory and clinical social work research is predominantly focused on the ways in which unconscious psychodynamics are at work between *people* (Jordan 2009), as Searles (1960) reminds us, we would be well-served to honor the significance of nature and non-human objects by acknowledging both their affect on us, and the subsequent insight we can gain from examining the qualities of our relationship with them.

Yet another Object Relations theorist whose work may inform this exploration is Melanie Klein, whose contributions to Object Relations are so substantial that she has often been credited as one of the tradition founders. Klein described two main modes through which human beings relate to external objects, which she extended to include inanimate objects as well as people.

Klein described the first, earlier mode of relationship as a place of deep disorganization wherein a person literally cannot experience an object as a whole. She notes the inherent imperfection of objects and their inevitable destiny to fail us in some way. In this earlier mode of relationship, which she termed “the paranoid-schizoid” position, the negative feelings associated with the failures of external objects to meet our needs are intolerable. The reality that what we depend on for survival might be undependable is so threatening to our existence that those feelings become associated with a separate object, whose creation also allows a person to experience their own aggression and anger at that object for having failed. What ego-psychology refers to as “splitting”, the process of compartmentalizing good and bad feelings or thoughts (Berzoff, Flanagan and Hertz 2008) is a dominant feature of the paranoid-schizoid. In this mode of relating a person cannot experience the full breadth of an object’s reality and insofar as he is dependent on that object to affirm his own reality, stasis in the paranoid-schizoid position does not allow a person to experience the full breadth of his or her own internal experiences. Klein saw that our developmental task was to move past this way of relating and stated that this process was ongoing through the life-course (Segal 1988). As the split between good and bad breaks down and a person is able to tolerate the ambivalence of feelings about the objects that form his or her reality, he or she will move into what Klein called “the depressive position”, wherein the depressing reality of things being both good and bad *at the same time* can be tolerated, as can the inevitable disappointment and the fantasy that anything can be “all good”. In the depressive position, wholeness emerges in the experience of the object and a person is concurrently able to experience a greater degree of wholeness within themselves (Klein 1964).

The value of nature in Kleinian terms is two-fold. First, it provides a set of objects that disappoint and serve according to how a person relates to them, thus providing a facilitating

environment in which to move from the fragmented paranoid-schizoid into the cohesive depressive position. In that process nature reveals the truth of our internal condition. The way in which we relate to nature reveals the reality of our internal constellation in relation to things that are external to us. Our actions are fed back to us in nature's responses to those actions. In that give and take, we encounter nature's second benefit in Kleinian terms; the provision of a set of objects that will encourage a move toward the depressive position. By relating to nature—this system of objects that is not necessarily designed to meet our needs—we will ultimately be failed and thus injured in some way as nature responds to us. In this interaction we are brought headlong into the depressive reality. We are dependent on nature and it is not here “for us”.

If we defend against this reality and become stuck in the fragmented paranoid-schizoid we demean our relationship to nature and thus, to ourselves. Remaining split in this relationship amounts to a Kleinian failure to develop, a failure to become what we might become. Hence an examination of our individual and collective relationships to nature has much insight to offer about our internal individual and collective processes. If we believe in the transformative power of analytic inquiry, understanding ourselves through an analysis of how we relate to nature is essential for our development whether that be in a Kleinian sense or not.

Modern analytic perspectives. In unpublished remarks from a 2012 presentation at the NYU Postdoctoral Program in Psychoanalysis, psychoanalyst Spyros Orfanos warned: “I fear sometimes that we think too fondly of nature, when in reality it can be quite cruel. Too often we speak of it as all good when this is simply not true.” His fear might aptly be summarized as a fear that we are culturally engaged in a deeply rooted process of splitting nature into good and bad. As any clinical observation of this process would indicate disturbance at an early developmental level, it's presence in our relationship to nature may indicate a major failure in our own

development. Mishan (1996), Jordan (2002), and Dodds (2012) echo this theory in their writings about the environmental crisis. These authors have also aptly applied a Kleinian lens to the environmental crisis, noting the unconscious process of splitting in relationship to the environment. To illustrate this process, we need only examine the widespread cultural narrative in relationship to nature. In this narrative, splitting dominates the storyline. Hurricanes, tornadoes, floods and earthquakes captivate our collective minds, something that is exploited by media outlets. But nonetheless, Anxiety is activated at all levels in response to nature; fears of annihilation, fears of losing species and losing nature, and fears that we have lost the love of mother nature and have become the source of her scornful responses to our narcissistic advances. Yet these anxieties in all their forms stand side-by-side with idyllic and pastoral portrayals of nature. We similarly conceive of her as the all-giving “mother nature” (no coincidence there) who provides such a bountiful set of wonders and an endless source of nourishment. While in some ways we may say that we hold these realities together, it feels more accurate to describe our response as that of the paranoid-schizoid, that we have failed to integrate the experience of nature as good and nature as bad. Rather, she exists as a split entity; the destructive hurricane and the bountiful harvest are not, at some unconscious level, completely integrated. We can now begin to see how much rich material psychodynamic theory has to offer about nature’s role in psychological health, but these contributions do not begin or end with Object Relations theorists.

Enactments in nature. In his 1983 publication: *The Conscious Use of Metaphor in Outward Bound*, Stephen Bacon theorizes about the functional mechanisms of a traditionally nature-based program, the *Outward Bound* model. He describes the process by which an experiential moment in nature has psychological impact:

This is a critical point: *in profoundly isomorphic metaphors, the student will be living two realities simultaneously*. In literal reality, he will be having an Outward Bound course experience; in psychological reality, he will be having both the course experience and the correspondent real-life experience. The mechanism of a *transderivational search* ties the two experiences together so tightly that one cannot be separated from the other. (p. 9).

Although Bacon does not isolate the role of nature in this experience, he later expands on the role of certain natural objects within the metaphoric realm: “the peak symbolizes mastery of the subsidiary archetypes...Timing is critical here. Climbing a peak prematurely can be like making love without sufficient foreplay: something that should be wonderful is disappointingly mediocre.”

What Bacon is describing here could also aptly be described using modern psychodynamic theory. The relational tradition has written at length about the nature of “enactments”. Frank (2002) describes an enactment as: “reflexive attempts to influence interpersonal interactions in particular ways based on their psychodynamics, both with the therapist and with others outside the psychotherapy setting.” Bacon deftly notes the potential influence of a student’s family dynamics, of their internal fantasies and their own psychic maturity on their experience at an Outward Bound courses, both interpersonally and in relation to the objects in the environment. Bacon’s work, although not widely referenced and still relatively obscure, even in modern Wilderness Therapy and Outdoor Behavioral Healthcare, serves as a valuable first step in bridging the gap between the clinical and the natural and describing what happens “inside the black box”.

Jung, archetypes, and collective symbols. Another perspective on nature’s value for to human psychological life comes from the Jungian school, which highlights nature’s symbolic

utility. In the Jungian perspective, wherein the symbols themselves contain the life of the unconscious, it is the human mind, which dwells in nature as much as nature exists in the human mind. The perspective is one in which nature may serve to facilitate encounters with ourselves through symbolic provisions to our unconscious.

The importance of symbolism is perhaps most commonly attributed to Carl Jung, who believed that psychological life consisted of a series of unconscious symbols.

Man feels himself isolated in the cosmos, because he is no longer involved in nature and has lost his unconscious identity with natural phenomena. These have slowly lost their symbolic implications...No voices now speak to man from stones plants and animals, nor does he speak to them believing they can hear. His contact with nature has gone and with it has gone the profound emotional energy that this symbolic connection supplied.”

Jung, 1964, p. 85

While Jung highlights the psychic effects of losing a connection to nature and its symbols, we can conclude that he believed the converse; that connecting to nature and its symbols provided a “profound emotional energy”. As a commentary on Sobel’s argument for a “Winnicottian” playful relationship with nature, Jung might offer that the benefit gained from this relationship is an emotional energy that is derived from an unconscious identity. This may also provide some insight as to why it is so difficult to deduce the powers of nature to a set of clinical theories. It follows from Jung’s emphasis on the power of symbol that nature is irreducible; it defies theoretical explanation beyond its raw, symbolic energy. Jung is thus fundamentally in line with the ecopsychologists in believing that nature’s influence on our unconscious psychological life is a consequence of an inseparable enmeshment with the natural

world. This world of nature provides a set of symbols through which we can represent, understand and communicate our conscious and unconscious emotions.

Existing in time and space. These encounters of ourselves through nature are not, however, limited to abstract concepts and symbols. Nature may also provide the opportunity for experiences that lay the foundation for our continued experience of ourselves in time and space. By providing a consistent set of grounding experiences and encounters with physical and temporal reality, nature offers the potential for us to feel real and that we continuously exist in a physical space, and throughout time. How does a child understand concepts of night, day, spring, summer and fall without the forces of nature that create our temporal reality? What is a month if it is not a lunar cycle? Nature's rhythms are our model for time. Without the examples of life and death laid before us, we might have an extraordinarily difficult time understanding these concepts.

Surely no conversation about our conception of time would be complete without a discussion of mortality. The philosopher Martin Heidegger wrote of our concept of time being defined by our mortality, contrary to the notion that time is associated with a sense of infinity (Heidegger 1962). According to Heidegger, our notion of time and our experience of time's unfolding in our lives are intertwined with a persistent unconscious awareness of mortality. Our knowledge that we will ultimately die, that all of our sentient experience will ultimately lead to nothingness, informs how we experience the unfolding of time.

Psychodynamic theories have firmly established that our experiences with object relationships, particularly in early life, have direct connections to our perception of death. Drawing on the works of Melanie Klein and the object relations theorists, Hurvich (1989) outlines the ways in which different forms of anxiety, annihilation anxiety in particular, are

influenced by traumatic experiences with objects in early life. Early failures of the objects in a child's environment amount to a child's particular internal constellation in terms of anxiety. Seligman (2012) takes this concept a step further as he notes that "nonresponsiveness" in caregivers affects a person's unconscious experience of the duration of their life. To Seligman, the character of how, when and if our early environments respond to us have significant influence over our concept of time throughout our lives. To Seligman, these early experiences with caregivers give us a feeling of the predetermination of time. Experiences of non-responsiveness from our early environments lead to feelings of hopelessness, expressed through persistent temporal distortions. If we apply the idea that failures in early attachment are bound up with anxieties of all levels—including a fear of death—we find a connection between early environmental failures—call them small "t" traumas—and distortions in the experience of time. Traumas in relationships to early objects in the environment are thus related to both distorted experiences of time and a fear of death.

As we have extended the effects of object relationships and object failures to include non-human objects throughout this paper, we can do so similarly here. Nature, and our relationships to objects in the natural world have a direct impact on our anxieties surrounding death and experiences of the unfolding of time. Inconsistencies within nature, and the subsequent failures that we face in relating to nature may similarly influence our concepts time and of the perceived proximity and fear of death. Yet ironically, or perhaps conveniently, nature also provides a potential resolution to these failures and their lasting effects on us. Nature provides us with the chance to encounter mortality and the finiteness of time and to defend ourselves against it.

Life, death and renewal: omnipotence and omnipresence. In his 2006 *Human, Nature* psychoanalyst Jerry Stein recounts the story of a man he once knew which is referenced in the

introduction to this paper (Chapter I, p. 1). This story has an important contribution to offer this exploration of nature's significance to human psychological health.

Nature provides the imagery contained within this story and enriches its power to the listener. As we read the description of how this man felt as a little boy, his innermost feelings are embodied by the concept of darkness, which, as I have suggested, is comprehensible because of its origins in the natural world. Our understanding of this inner feeling that led him into the woods is deepened further by the imagery of a dark wood, which, as he acknowledges, corresponded to how he felt about himself. In that space of interaction between the inner workings of the human mind and nature, between the symbolizing and meaning-making machine and the environment that surrounds it, nature provides a set of receptive symbols that allow the complexity of human emotion to find expression. Where would this boy have wandered if not into a dark woods? Without nature, he might not have experienced or understood his emotions in such a way. Surely, without the flower, he might not have decided to turn around. It would be easy to simply assert that nature healed this young boy, but such a simple explanation would fall short of this paper's goal. It is also tempting to imagine that the light shown on that flower at that moment because of some divine intervention, implemented in order to save this young boy. But such a fantasy is likely guilty of some magical thinking and may be only a few steps away from psychotic. Although the flower clearly did save him it was likely serendipitous that he happened upon it at the right moment.

The encounter with the flower saved this boy from death. More precisely, it saved him from his own desire to die. By some mechanism of the interaction between a young child's psyche and sunlight on a flower, the young boy's desire to die faded and he began the road to a fruitful life.

Freud described the human instinct to self-destruct as “thanatos”—the death drive—and stated that this drive towards death exists alongside eros—the life instinct (Freud, 1920). Interestingly, “thanatos” may have origins in Greek, its roots meaning “darkness” and “disappear”. Freud described these forces as in constant conflict, expressing themselves in our feelings and actions and existing in relation to the external world. We have already discussed the Jungian perspective in which nature provides a set of symbols that enable the expression of unconscious feelings, but this young boy’s encounter with nature provides new insight in light of Freud’s competing drives. Using Freud’s terminology, we could understand the role of nature in this young boy’s life as having bolstered his libido. In the never-ending competition between the drive toward life and death, a small flower fought the darkness of the unknown woods; life fought death. Exactly *how* the flower came to his rescue and *why* he found strength in that encounter with nature is still somewhat mysterious. I will suggest, however the flower symbolized the potential for life and renewal.

Or perhaps it was a function of object relations, wherein this flower symbolized these important functions that were so devoid in this boy’s life. By encountering this flower, this innate symbol of life—of renewal, regeneration and beauty—this young boy was able to identify with it and slowly, throughout life, to incorporate the symbolic content of that flower into his own life. And I’m so glad that he did, since I also knew this man and he proved an influential figure in my life. Yet this is not the only way in which nature can protect us from death, and this man is surely not the only person to have benefitted from nature’s protection against death. As this study will show, the common experience of nature’s curative power is somewhat ubiquitous.

Aside from offering protection against the death drive, nature also provides a means for protecting ourselves from the common mourning of our own eventual death and the loss of those

around us. It provides us with something that we perceive will exist long after we are here. Merging oneself with something eternal such as nature serves to protect one from the shattering reality of one's own mortality. During my young adulthood, I lost a friend to a sudden and tragic death. We were stunned. In searching for ways to grieve the loss it seemed fitting to plant a tree near the site where he died. That tree's power resided in its ability to remind us of our dear friend, and in its ability to protect us from forgetting. Surely, although it was not discussed, in planting that tree we might also have been protecting ourselves from facing our own death, and the possibility that we might easily be forgotten.

Sheldon Bach (2012) writes of the importance of being held within another's consciousness. He describes the act of being *remembered* as providing a sense of reality, without which we would not know our own existence. As an extension of this idea, we could examine our own reality as given by a struggle against being forgotten wherein our death represents the single most significant danger to us: It will happen and we will not be here to remind the world, nor will the world remind us that we *exist*. If however, we merge with nature, identify ourselves with an eternal place, or a tree that will long outlive us, we are afforded some amount of safety from the fleeting nature of our lives and the consequent feelings of disorientation.

Viktor Frankl's (1959) account of his life in Europe during World War II focused on the importance of "meaning" in life. He noted the importance of finding meaning within tragedy as he recounted the trauma he experienced in a concentration camp during the war. However, Frankl extended this notion to emphasize the importance of meaning in the life of every human being, and in response to all sorts of trauma, including the daily failures and disappointments in life that are far from equaling the horror of the holocaust. Without meaning, Frankl believed that life was not worth living. Bringing meaning to one's experiences and to one's future was

essential to Frankl's philosophy, which came to known as "Logotherapy". Meaning has also surfaced as an important concept in Judith Herman's seminal work on trauma, *Trauma and Recovery*, wherein she speaks of traumas as having the potential to destroy the meaning of one's life. She writes: "Traumatic events overwhelm the ordinary systems of care that give people a sense of control, connection, and meaning." (Herman 1992, Kindle Edition p. 33).

As the Object Relations school has demonstrated, failures in relationships with early environments, human and non-human, amount to a type of trauma. Herman's description of trauma gives valuable insight into the effects of all forms of trauma, including a child's unmet cries for attention from his mother, a young boy's horrid experience in a Nazi death camp or the low-level trauma of our own eventual death that whirs beneath the surface of our consciousness. This view of the multiplicity of traumas and their dynamic effects on the human psyche offers us an understanding of why nature might be therapeutic and offers interesting potential explanation to some of the empirical studies documenting nature's curative powers that are summarized earlier in this chapter.

Engaging with nature may restore a sense of control, connection and meaning. In the example of something like gardening, it may be that a person is provided the opportunity to re-establish what has been lost as a result of some trauma, major, minor or anywhere in between. Similarly, using this framework to understand traumas, we could use nature as a means of understanding someone's particular responses to traumas by observing the ways in which they engage in nature. Their efforts to exert control and to establish connection, or perhaps to find meaning in their relationship to nature would offer valuable clinical insight if viewed from this psychodynamic perspective.

Since the “trauma” of the inevitability of death is not necessarily as discernable, it seems necessary to comment specifically on nature’s benefit to the everyday human being. Plenty of people who function at high-levels and who do not exhibit any symptoms of psychopathology take great joy and meaning in nature. One hypothesis is that nature serves as a remedy for the psychological ailment of mortality and the anxiety that surrounds death, an ailment that is largely unconscious. Nature may provide us the opportunity to fantasize about transcending these realities. Aside from creating progeny, there is perhaps no better means by which we can transcend our own mortality than to connect to the eternal nature. We know that nature will exist long after our own death and the act of connecting to nature provides us at least, the fantasy (and perhaps the real) possibility of immortality. If we regularly garden or climb a mountain, we may simply be seeking to continue our existence long after we have died. Such acts within nature serve to instill a feeling of immortality and hence, of our own power.

Summary

We might view the opinions about nature as a spectrum: on one end there is an exceedingly large group of staunch advocates for nature’s importance to psychological wellbeing. On that end, the ecopsychologists even extend that importance to claim that “there is no separation” between our wellbeing and that of the natural world. There is also ample empirical research that supports the claim that nature is important to psychological health. We have seen many ways in which psychodynamic and psychoanalytic theory may provide insight into *how* nature is important to psychological health. Then there are philosophers such as Žižek, who argues against what he calls the “false myth” that there is such a thing as “nature”. In this perspective, what we refer to as “nature” may be so fundamentally connected to our health because it is a myth that such a thing exists as a separate entity. On the other end of the spectrum,

there are those who claim that nature is irrelevant, or at least, not as important as human relationships. We have also seen that exploring nature's utility and role in psychological health presents problems at many levels. First and foremost, it presents the dilemma mentioned in the introduction: *what is nature and how do we define it? What is included within it and what is not?* And with regard to the question driving this study, we ought to consider the difficulties in exploring a topic that takes so many varying forms and about which there are innumerable perspectives. Nonetheless, we can reasonably assume that in conducting this study about nature, that we can generate a reasonable consensus about what we are studying. Furthermore, the value of pushing through these obstacles to research is well worth the challenge as it may be that nature is far more important to our psychological health than is commonly stated within the various fields of clinical mental health practice.

CHAPTER III

Methodology

Research Design

Using a qualitative interview-based research model, this study was designed to gather information from highly experienced mental health practitioners regarding nature's role in psychological health. This interview based approach, while not unique to the research about nature and psychological health (see referenced studies from horticultural therapy, wilderness therapy) has less commonly been applied to gain the perspectives of practicing clinicians about the subject. There are ample studies exploring nature's role in psychological treatment that show, using a variety of methods, that nature has an effect on our well-being (Kaplan and Kaplan 1989, Pawloski et. al. 1993, Martin and Farnum 2002, Jackson 2005, Bernstein, 2012). Some of these studies are outlined in the Literature Review (Chapter II). In contrast, there are a great many studies--representing the majority of research and academic writing-- that do not make mention of nature as having any clinical significance. While anecdotal and philosophical literature about nature's effects on the psyche abound, there is a relative dearth of literature written about nature's interaction with the human mind from a clinical perspective.

Perhaps the most notable exception is Harold Searles's 1969 "The Nonhuman Environment" where he writes: "Human beings have complex relationships to the non-human environment that have great significance for human psychological life. We ignore the implications of the non-human environment at great peril to our psychological well-being" (p.7).

This study is an attempt to bridge the gap between the clinical and the natural and illuminate the intersections between accepted clinical theory and practice and nature's interaction on the human psyche. The study used qualitative interviews that were designed to engage clinicians in a conversation about nature's role in psychological health and employed a diverse approach to data analysis in order to maximize the value of the data. The methodologies of the study, from recruitment through analysis, will be further discussed here in this chapter.

Sample

Recruitment for the interviews was conducted using what is referred to as the "snowball technique" of recruitment. A general request for participation was sent out to mental health practitioners within my professional network. Additionally, recipients of the call for participation were asked to consider forwarding the letter to any other potential participants. The letter used for recruitment is available for review in appendix B under the title "Standard Recruitment Letter."

One drawback of this method of recruitment is that it is not the most effective means for attaining a diverse sample group. It is neither effective at achieving a level of racial nor ethnic diversity nor diversity of clinical experience. Given the small sample size however, data regarding race and ethnicity would do little more than provide speculative and unreliable suggestions about correlations between race/ethnicity and any other variable in the data. Hence the snowball technique did not, in this instance, detract from the value of the study in this regard. Similarly due to the small sample size, data gathered with regard to the particular clinical training background of participants does not provide any reliable information about potential correlations with that variable. This data was collected despite this fact and will be noted later in this chapter under the "sample" heading, along with other descriptions of the sample.

Far and away, the most important characteristic of a participant in this study was that the participant qualified as an “expert” in the field of mental health, and this will be addressed with comments on this designation later in this paragraph. It was also important that the participant have something to say about nature in relation to psychological health. While the snowball technique does not ensure that potential participants will share both or either of these characteristics, it does provide the chance for a sample that is more random than targeted outreach, thus adding more diverse perspectives on the subject than if, for example, the study had focused outreach strictly to clinicians who practiced some sort of nature-based therapy. There were no efforts made to recruit directly from therapeutic organizations and networks that work specifically with nature, (wilderness therapy organizations, ecopsychology practitioners, etc...) Although this pure snowball approach does not *guarantee* a diversity of ideas, it sets up the study to gain a more diverse set of perspectives than a study that only recruited from nature-based therapeutic organizations and individuals who specialize in such forms of treatment.

It should also be noted that it is likely that the respondent group represents an unbalanced perspective, regardless of the technique used in recruitment. Participants who willfully committed their time to volunteer for an interview about nature and psychological health without compensation were likely to have had something to say about the subject. It is thus inherent in this study that the sample was somewhat self-selected to create a sample that was perhaps not representative of the broader perspectives among mental health practitioners. However, in keeping with the purposes of this qualitative study, this recruitment method conversely was likely to generate valuable data from participants who would be able to comment in more detail about nature and psychological health. In reviewing the data, it is important to keep this in mind in its potential to skew the data toward affirming nature’s importance to psychological health.

Participants were required hold at least one master's-level clinical degree (or higher). Current graduate students were not eligible for participation, however retired clinicians were permitted to participate if they had at least 10 years clinical experience and had held a clinical license within the past 5 years.

Procedures

One of the first tasks of the study was to safeguard the process of informed consent for potential participants. As per the recommendation of the Institutional Review Board (IRB) at Smith College, careful attention was paid to the recruitment process so as to ensure that participants were not coerced to participate by any means. The recruitment process was deliberately separated into several stages: 1) Briefly informing persons of the nature of the study and the nature of participation 2) ensuring potential participants met eligibility requirements 3) obtaining informed consent 4) conducting the interviews.

As previously noted, a generic recruitment letter was drafted (see appendix B, "Standard Recruitment Letter") and sent to participants within the primary researcher's professional network. Recipients were sent the letter via e-mail and were asked to review the eligibility requirements and to consider volunteering for the study. Potential participants who responded affirming their interest were confirmed to be eligible for the study before they would receive the letter of informed consent. After it was confirmed that a potential participant met the requirements for participation they received the Letter of Informed Consent (appendix C) along with a note asked the potential participant to review the letter and offered contact information should they have any questions about the study or the nature of participation. Once the signed letter had been received an interview was arranged and conducted.

Also in accordance with Institutional Review guidelines, the research method carefully considered the impact of the study on the participants with regard to issues of confidentiality (both of the clinician's identities and those of their clients/patients). First and foremost, the Letter of Informed Consent clearly reminded participants that they were expected to uphold ethical standards of their profession, with particular reference to upholding confidentiality. In order to further safeguard both the confidentiality of participants and therefore also of their clients/patients, identifying information (such as was used in the correspondence during recruitment), was not stored on a physical drive but rather kept in a password-protected secure e-mail account. Recorded interviews were stored on a password-protected physical drive and the handling of all data--including transcribed interviews—was managed according to the federal guidelines for research overseen by the IRB. A copy of the IRB approval letter can be found in Appendix A.

An additional ethical concern, also overseen by the IRB, was the potential emotional impact of the study on its participants. While this study presented relatively little risk for emotional harm to participants, the interviews did ask directly about the importance of nature to mental health in general and about their personal relationship to nature. While the risk that participation could cause emotional harm to participants was very minimal, it could not be totally ruled out that the interviews might have stirred some emotional reaction within one or more participants that would have necessitated additional consultation. Participants were thus encouraged (in the Letter of Informed Consent) to consider any particular sensitivity they might have that would put them at risk for emotional harm during their participation in this study. It was assumed that participants' clinical training necessitated a level of self-awareness that would result in an informed decision of whether or not to participate in this study. If their participation

had resulted in any emotional distress or harm it was further assumed that as a licensed or retired clinician they would be aware of various therapeutic resources and hence no such resources or referrals were provided during the recruitment process or at any time during participation in the study.

The interviews were largely conducted over the phone and recorded with a digital audio recorder. The same recorder was used in the instances where interviews were conducted in person, (a total of two interviews took place in person). The interviews were structured loosely with an interview guide (see appendix D) that was formulated to maximize the interview's potential to gather valuable information. This was achieved through a collaborative process involving both an advisor from Smith College as well as the Smith College Institutional Review Board, both of whom oversaw the study's adherence to federal and ethical guidelines and consulted on the study's efficacy in achieving its purpose.

Both resources provided feedback about the structure of the interviews and the interview guide. The interviews included questions that paid particular attention to the *analytic* value of nature (i.e. can nature and a client's relationship with nature be used to assess a client?) as well as nature's *therapeutic* value (i.e. can nature and a client's relationship to nature be used to meet treatment goals?). The interviewer utilized interview skills from evidence-based interview strategies such as reflective listening, open questions, summaries, exploring affect and formulation and feedback of themes and conflicts during the interviews in order to facilitate a participant-centered interview (Fowler and Perry, 2005; Miller and Rollnick 2012; Hollway and Jefferson, 2008). The interview guide was applied in a manner that catered to the natural progression of each interview in order to prevent the guide from dictating, to an unhelpful extent, the process of the interviews. It was however, kept as a loose outline. Questions from the

guide often began and ended the interviews and offered questions to keep the dialogue moving. Lulls in the conversation or indications of repetition of responses were taken to indicate an appropriate time to redirect the interview toward answering a prepared question from the guide. This “mixed method” interview drew from a variety of techniques, including, but not limited to Motivational Interviewing and Free Association Narrative Interviewing and Psychodynamic interviewing. Other references for interview strategies are listed in the reference list and the full interview guide is available in the appendix.

Data Analysis

Each interview was transcribed by the sole researcher and emergent themes were noted both during the transcription process, and in a series of reviews after all the transcriptions had been completed. It should be noted that there was a potential for the researcher’s personal biases about nature’s importance to psychological health to have played a role in influencing the themes that emerged from the data analysis. Partially in an effort to minimize this affect a qualitative analysis program called “Dedoose” was utilized. Although the program does not provide any assistance in searching for themes by analyzing the text itself, the program did assist in analysis by making on otherwise completely subjective process noticeably more based in factual analysis.

Some of the themes were identified using direct, text or word-based analysis. For example, if five clinicians said directly that they thought nature was important but only to some people this might emerge as a theme and would be restated and included in this report. In these instances, word-based techniques were used in the theme selection. Other themes, however, were selected using scrutiny-based and linguistic-based analysis methods. These methods of analysis helped to enrich the final analysis as they are often more effective means for analyzing complex texts that combine narrative and fact-based qualitative data (Bernard and Ryan, 2010).

Analyzing the data according to fact-based and linguistic-based methods illuminated some important themes within the data that were not immediately apparent in the stated answers about nature and psychological health. For example, if only three participants explicitly stated being unsure or unclear whether or not nature included human beings, but the majority displayed this uncertainty in their responses, a simple text or word-based analysis of the individual interviews and of the data would reveal little information of value with regard to this theme. However, applying linguistic-based analysis techniques would allow for this theme to emerge despite its relative absence from the explicit statements of the interviewees. This approach to analysis thus greatly enriched the findings and discussion of this report.

While many different themes were present within the data five themes are highlighted here and were selected for this report based on careful consideration of two factors: frequency of appearance within the data and relevance to the research question. Each theme presented in this summary appeared no less than 5 times within the interviews, with some appearing in all 12 interviews.

It was equally important that themes selected for this summary provide the most valuable insight into the research questions: Is nature important to psychological health? What role(s) does nature play in psychological health, and in clinical assessment and treatment? Themes were rated on a scale of one through five for their relevance to these research questions and to the other themes identified within the data. Themes were given a possible three points for their relevance to the research questions and a total of two points for their pertinence to other themes. Each theme selected for this report earned at least four points. Themes with the highest rating that did not appear more than five times were not included as a major theme within the data. The

result was a collection of five themes from the data that were strongly characteristic of the data as a whole and highly valuable to the research question.

CHAPTER IV

Findings

Description of the Sample

A total of 12 participants were interviewed. The training backgrounds of the participants were distributed as follows: Three Psychiatrists (M.D.), four Licensed Clinical Social Workers (LCSW), three Licensed Professional Counselors (LPC), one Marriage and Family Therapist (MFT), and one Clinical Psychologist (Ph.D.). The years of clinical experience of each participant in the sample ranged from two years to 40 years. The mode years of clinical experience was 35 and the median was 20 years. The sum total number of years of clinical practice among the sample was 240.

Three of the participants had worked directly in wilderness therapy at some point in their career but none currently practiced in a nature-based therapeutic modality as their primary clinical activity. All 12 participants reported having pursued post-graduate certificates or training programs, but only 9 participants specified what those programs were: two participants in the field of ecopsychology or ecotherapy, two in the field of domestic violence treatment and prevention, three in psychoanalysis and/or psychoanalytic psychotherapy, one in Cognitive Behavioral Therapy and one in Eye Movement Desensitization and Reprocessing. Eight participants were either active as clinical supervisors or had provided clinical supervision during their career. Seven participants had taught a mental health discipline in an academic setting. 10 of the 12 participants currently or previously managed a private practice, three of which focused their career in this area. The following are brief professional profiles of the individual

participants including: Clinical training background, area(s) of post-graduate study and/or theoretical interest(s), clinical practice setting(s), primary population(s) served):

Participant 1. Marriage and Family Therapy; depth psychology and psychoanalytic/psychodynamic psychotherapy; community mental health practice; underserved populations/clients with low Socioeconomic Status.

Participant 2. Psychiatry; (not specified); inpatient psychiatric setting and jail-based psychiatric treatment, underserved populations, veterans, criminal offenders and the severely mentally ill.

Participant 3. Clinical Social Work; domestic violence prevention/education; community mental health practice and private practice psychotherapy; (none specified).

Participant 4. Psychiatry; Psychoanalysis; private practice psychotherapy and forensic consultation/evaluation; veterans, criminal offenders, trauma victims and the severely mentally ill.

Participant 5. Psychiatry; Psychoanalysis; private practice psychotherapy, inpatient psychiatric settings and forensic evaluation/consultation; “artistically gifted” persons, criminal offenders and the general population.

Participant 6. Clinical Social Work; domestic violence prevention and crisis response; community mental health setting, private practice and transitional facility; battered women and oppressed populations.

Participant 7. Clinical Social Work; psychodynamic psychotherapy; college mental health counseling and private practice; (none specified).

Participant 8. Counseling psychology; ecopsychology and nature-integrated psychotherapy; private practice and community mental health; (none specified).

Participant 9. Counseling psychology; outdoor behavioral healthcare; wilderness therapy provider; at-risk youth and young adults.

Participant 10. Counseling psychology; (none specified) college mental health and private practice; (none specified).

Participant 11. Clinical Psychology, (none specified); private practice psychotherapy; urban populations.

Participant 12. Clinical Social Work; (none specified); Community mental health, private practice and social service administration; underserved populations and youth in foster-care.

Responses to Interview Questions

As discussed in the Methodology section of this report (Chapter III), not all interviews proceeded in an identical fashion and the interview guide (Appendix D) was used as an outline rather than as a script. Nonetheless, this section will describe the characteristics of participants' responses to particular questions that were asked to in all interviews.

Reactions to the definitions of “nature” and “psychological health.” Each definition was read verbatim and participants were asked to share their reactions and opinions. There were a variety of reactions expressed about the definitions (See chapter I, “Introduction” for the definitions”), however every participant agreed that the definitions were mostly accurate and consistent with their opinions. There was some variability to the level of comfort each participant stated with the definitions, but none of the participants explicitly disagreed with the definitions. Three participants immediately asked if nature included human beings or not, and were requested to share their own opinions on the matter. This discussion would arise later in several of the other interviews (7 participants stated uncertainty about the matter). One participant wished to discuss the concept of psychological health, reiterating that the concept of “health” was a relative term

that differed from patient to patient and person to person. Four other participants stated in various ways that although they agreed with the definitions, that the definition of nature failed to describe a quality of nature that they experienced. One participant described this quality as “magical”, noting that the definitions felt “dry”. Another classified it as “scientific.”

In the course of your clinical work, have you had any experiences with clients that would indicate a connection between nature and psychological health? Please describe any such experiences. A total of nine participants were able to recall a particular client for whom nature had played a role in treatment. These stories varied from brief recollections to 15-minute, in-depth treatment histories where the role of nature varied within the various treatments. One other participant was able to recall a relevant anecdote, but it was not in response to the question, rather, it was interjected at a later point during the interview during a discussion about how a client’s relationship to nature could inform a clinical assessment. The other two participants spoke in more general terms about nature and psychological health and opted not to speak directly about any particular client.

Do you think that examining a person’s relationship to nature could be valuable in formulating a clinical assessment of a client? Please explain. This question generated some confusion and gave participants noticeably more pause than any of the other questions. Half of the participants asked for clarification of the question or stated uncertainty about what was being asked. After clarification, 8 of the participants answered “yes”, but each was somewhat vague in stating exactly what kind of valuable information could be contributed to an assessment by examining a patient’s relationship to nature. Six participants indicated that although they believed it could offer some valuable insight, that it was not directly clear what insight it would

offer or how it would assist an assessment. Four of those six stated specifically that they “had not given it much thought” but stated that it was an “interesting idea.”

Do you routinely ask clients about their interactions with nature or their activities related to nature? Why or why not? Most commonly, participants in the sample stated that they did not routinely ask clients about their relationships with nature. A total of ten participants answered “no” and only two answered yes. These two participants were the two participants who practiced some form of nature-based treatment. The most common reason that was given for not asking was a belief that it was not sound clinical practice to impose such a question on the treatment. However, four of the ten stated that they “listened” for patients references to nature and would be open to asking about it and discussing their relationship with nature if the patient introduced the subject. “I wouldn’t want to impose”, one clinician stated.

Has nature played a significant role in your own psychological health? Can you elaborate on nature’s role in your own psychological health? Unanimously, participants all stated that nature played an important role in their lives. Many participants listed several ways in which nature served their own psychological needs. All twelve participants made some reference to nature’s role in facilitating activities that they used for self-care. Nature’s role in facilitating mindfulness was referenced by seven participants, although not unanimously with that exact language. Six participants, two of whom emphasized nature’s deep and spiritually transformative powers, described nature’s role in individual spirituality. Seven participants described nature’s calming effects, noting a state of psychological ease that they often sought within nature. One participant referred to nature’s ability to facilitate a process of “dissociation” from situations that caused anxiety, such as going to the dentist.

Themes

Defining nature presents a challenge: are human beings a part of nature? This theme emerged through as a result of participant's reactions to a particular question that was asked during each interviews. Near the beginning of each interview, I read a definition of nature (see Introduction) and asked each participant to react to it and to share his or her thoughts about the definition. At this point, or at some other point in the interview, seven of the participants indicated having some uncertainty about human beings' place in nature. A total of four participants stated affirmatively that human beings were absolutely a part of nature and one expressed the opinion that human beings were not. In five of the interviews it became a major focal point for discussion. The question of whether or not human beings were a part of nature and the dynamics of how human beings fit within nature drew much attention and generated much discussion. Participant number 1 had the following to say about the dilemma:

I feel inclined to make a distinction between whether sentient and non-sentient beings are part of nature. I think human interaction and culture is a part of nature, it's a part of our environment, our existence-- it hugely determines who we are, how we are, how we interact-- but I guess In my mind I'm still distinguishing plants and trees and mountains; kind of a part of the environment that aren't people. I guess animals too. So I am making a distinction that nature is somewhat separate from people, yeah, but I guess I don't feel very clear about it... I guess a part of me I think everything is included in nature, so people are included, but I have a desire to keep things separate to better talk about things and I have to admit that as I do my own meditation I like doing it with trees and plants and its harder for me to be mindful interacting with people; it's not a meditation. Whereas when I'm walking in a garden I can follow my breath and cultivate

more calmness and being alive in a way that's challenging with other people. So I want to separate valleys and mountain ranges from people. But I think they're all interconnected ultimately, it's kind of a paradox.

In addition to explicit statements about this uncertainty, this theme was also evident in a disagreement between some of the participants' opinions about the subject. For example, after participant 5 was asked whether they thought human beings were "a part of nature", their response was simply "no". "Could you expand that statement? How are human beings not a part of nature?" "We're just so different from everything else." When contrasted with participant 3's opinion, the conflicting perspectives become clear:

Nature is community; it is all the different life forms on the planet and it's all interrelated into a vast web of life so when we're aware that we're a part of that web, and that there are many other parts to it, then we're in a healthy community and I think that we are community oriented animals, we're socially wired to be in community and to both take and give to that community as a way of being.

Participant number 12 agreed that human beings are a part of nature and noted that the definition of nature used for the study may imply otherwise:

P 12: The definition interestingly feels like it puts humans on a different plane than the other things I'd consider to be nature. I think we might be equal as a part of nature, does that make sense at all?

I: It begs the questions: How are human beings related to nature? Are we the same, different? Separate? Not separate?

P 12: Umm. I think the first part of your definition is right: it's all interconnected, even if we might sometimes think of ourselves as separate. I'm not sure

we can ever really remove ourselves and if we do, it might just be an illusion; a fantasy.

Nature can provide a powerful tool for clinical work, but has limitations with regard to its utility for certain people and efficacy in certain therapeutic tasks. The most direct answer to the research question came in the form of this major finding, which emerged from direct questioning about nature's clinical utility. Participants were asked to comment on nature's value to clinical treatment and assessment, leading to many affirmative statements of nature's clinical utility with regard to both aspects of clinical work. However, there was nearly ubiquitous agreement that nature had limitations for clinical applications. While many clinicians spoke of the therapeutic value of nature, even the strongest advocates for nature having therapeutic value noted that they had served many clients for whom it was not or would not have been an effective means of treatment. Similarly, there was disagreement within the data about what nature was effective in treating, and what it was not.

Nonetheless, each participant articulated somewhat different perspectives on exactly how nature could be used in clinical work and what made it clinically viable. There were perspectives rooted in attachment theory, such as presented by participant 7:

...(nature)reminds us how important that as creatures of nature we are unique in that way, dependent on each other for survival. Our survival works much better if we have other people around. One person to tend to the fire, one person to put up the tents, one person to cook, we get our needs met more consistently and can survive much better in the harshest environments whereas if we try to do it alone it's much harder to survive. And how that's a reflection of our innate attachment needs. We're not born with any other skill except to elicit the care of the caregiver. I think that's why nature-based

interventions are so powerful because they highlight the interdependency of human beings, the need for people to survive and how healing that is during therapeutic process.

Participant 7 also spoke of nature as facilitating the therapeutic access of unconscious material:

...there's something about there reductionist aspect of interacting with nature that distills the human experience, uncomplicates the human experience and allows us to get in touch with more primal basic needs, the neglect of which may be at the root of psychological health. ... Nature is similar to meditation in that way that it shifts focus, slows things down, shifts priorities and that creates more access to unconscious material.

Participant 5 spoke of nature's value to clinical work as coming from an inherent and indescribable ability for nature to meet developmental needs:

P 5 :I saw a group of patients over a number of years who had very emotionally impoverished childhood who had done reasonably well in their lives... What they had in common is that they had immersed themselves in nature from early childhood... It seems that nature supplied something that we usually think of as coming from parents or childhood friends.

I: Could you say more about what you think nature provided for them?

P 5: I'm not sure it adds anything different but it seems to help their emotional development. I started out thinking nature could substitute for human relationships and after doing more work, I theorized that nature is not a substitute but really is the most important relationship, and a lot of what we get from parents and friends is an introduction to nature. It's the relationship with nature that seems to develop and stabilize people and to increase their productivity and creativity.

Other interviews revealed the perspective that nature's facilitation of the process of symbolization through metaphor was a source of its utility for clinical treatment. Participant 12 had this to say:

I remember this one woman whose experience of herself in the world was captured by the metaphor of being in a canoe on water and without a paddle; just aimlessly floating on the surface without any control...I think the metaphors that nature provides could be used in a number of ways, like for instance in developing a miracle question I could have asked her what would have to happen for her to feel like she had an oar, or was directing the boat and doing what she wanted it to do. What happened? What did you do to have that happen? Or we could have talked about experimenting putting an oar in. Is there a paddle in the boat? Where do you get a paddle? Who do you see who has a paddle? What are they doing that you see? If you can see a paddle what keeps you from getting to it?

Participant 12 also spoke of the usage of this metaphor in ongoing assessment: "So, was there any time this week you felt you had a paddle? Let's process that. How many times did you have a paddle in the water this week? What does it feel like when you dip it in the water? I think it could have been powerful to utilize that as a tool to track her progress."

Other participants recalled clients or individuals they had known or worked with whose relationship to nature could have been used in formulating an assessment of that individual:

I: Do you think one's relationship to nature could be valuable in formulating an assessment of an individual?

P 4: Yes, definitely. Some people's relationship to nature and the things around them is destructive. People focus on various aspects of the cycles of life and death and I think

there's something important to be learned about a person from where their focus is. For instance, I was along as the doctor for a wilderness trip once, back in the 60's, and I had a background in surgery and emergency medicine. I had no psychiatric training at that point. I remember that we built a campfire one night and there was a very large stump near the campfire and, appropriately, somebody at some point picked it up and put it in the fire pit. It turned out that this stump was the nest –The haven– for about a half million large black ants. As soon as they were exposed to the smoke and heat they cleared out of the log in huge numbers, many of them carrying eggs and other parts of the nest and this woman just fell apart and was inconsolable. Her grief was extraordinary. I'm not sure she enjoyed her first exposure to the wilderness after that. That's interesting I hadn't thought about that for a lot of years. ... I don't know what her grief issues were and life and death issues are certainly a major part of nature. ... Had I followed up with some appropriate questions, I think, assuming I was permitted to have that kind of a relationship with this woman, that I would have learned a great deal about her and why she was so sensitive to that,

Despite nature's utility in the perspective of most participants, several participants also noted nature's limitations as a clinical tool. Here, participant 2 cites it's limitations with regard to whom it may be useful for treating:

Some people are sensitive to it and some others aren't. Like for me to go cross-country skiing when it's 20 degrees outside with the sun shining would be heavenly, but some patients I work with would find it like a death march and wouldn't like it at all. You have to have some kind of bend or slant towards it, and some of that may be cultural.

Similarly, some participants also stated nature's limitations with regard to what it can be effective in treating. Participant 1 had this to say:

...my hesitation is that I think a person needs to have been exposed to a positive relationship with other people and I fear that people who are so damaged when they're young aren't able to actually enjoy, appreciate or develop a relationship to nature. They are limited by their history, maybe even just because of their limited cognitive capacity. Participants unanimously stated having observed that there were some clients for whom nature was a powerful treatment tool and some for whom it wasn't.

No participant explicitly denied nature's potential utility in treating certain clients and neither did any participant state that it was helpful for everyone. The prevailing opinion was somewhere in between, with a participant 6 stating that nature *could be* of great clinical significance for anybody who could be open to it. "I believe that everyone has the capacity to be moved by nature within them, but some people are simply not in touch with it and so it's not an effective tool in working with those people." With regard to why some people were open to nature and others not, participant 6 speculated that it had something to do with "their exposure to trauma". "I've seen people who have been so traumatized that nature was the only thing they could turn to. For those people, they may have no other choice and it may actually save their lives."

Participant 4 also alluded to a link between nature's utility and trauma, describing nature's utility for veterans with PTSD: "I suspect that it's something predictable when nothing else is in their life. They seem to seek nature in hopes that they'll eliminate the element of surprise in their life."

Participant number 5, who was a staunch advocate of nature's importance, spoke of nature's limitations not to whom it could assist but rather to what symptom or problem nature was capable of treating:

I think there are limitations to what nature can provide. I don't think nature can provide a great capacity for lifelong intimacy with others, but it may well be that it can provide everything else. ... I treated one man who really grew up in a terrible situation: his mother had tried to kill him with a shotgun and the area he grew up in wasn't very good. He became a star athlete and physician. He served in the military and they wanted to make him a general, but he refused to do it because he didn't want to live within commuting distance of the pentagon. He became the director of a big national program, worked extraordinarily well with people but he acknowledged that his capacity for intimacy was limited because his experience was in nature. ...He was kind of a poster boy for how good one can do with contact with nature so long as life-long intimacy was not a requirement.

Dissonance between personal experience of nature and clinical practice. Unanimously, every participant interviewed reported that nature was important for his or her own psychological health and wellbeing. Some talked of profound transformative experiences and nature's role in healing their own emotional and physical wounds while others simply recalled peaceful experiences in nature and the ongoing benefit of those experiences in handling the stress of their challenging careers. Despite these unanimous reports only one participant noted routinely asking clients about their relationships with nature. Five participants reported having made efforts to incorporate nature into treatment, for instance, by conducting therapy outside during pleasant weather or building an outdoor yurt in which to conduct their private practice. However, all of

the participants, including these five, reported that nature played a limited role in their clinical work and that the bulk of their clinical practice was largely exclusive of any involvement with nature. 10 participants alluded to practices that were “clinically acceptable”, and five of them noted feeling pressure, either from a supervisor or the professional organizations that they worked with, to conduct clinical treatment using approaches that did not involve nature.

They spoke of pear blossoms in their neighborhood, of favorite spots on rivers and the wildlife they’d encountered over the years, of their beloved gardens in the backyard and of the personal transformations that nature precipitated. Participant 8 spoke of nature’s role in personal healing:

I developed a really personal connection to nature at a young age, I don’t think I realized how deep that connection was until my adult years when I was in my mid-twenties I became very sick and I had a lot of questions about life and mortality. I noticed that while I was struggling physically and emotionally, I wanted to be in a natural environment. I felt like that’s where I could pull myself together and decide how I wanted to live my life and that would be healing...I had an intuitive sense that getting out of the city would give me something really deep and it did. So that could be a placebo, I guess, but I do know that upon moving out here I started feeling more grounded and my health improved significantly.

Participant 12 described a powerful experience that aided in every day psychological health and wellbeing:

It was the place where I really explored the question of “where am I going to put my foot next”. It was a 14 day hike from Chamonix to Zermatt, crossing alpine passes every day, and it wasn’t terribly technical but it was the hardest thing I’d ever done and

required my entire intentional focus to figure out how I was going to get to the top of that pass. The only way I could do it was to decide where I was going to put my next foot. What's the next step? And I came back and my boss asked me how it was and I said it was fantastic and said how I'd learned this incredible lesson that life was about how to take the next step and how to take it well.

Despite the personal significance of nature to each participant, participants unanimously reported that nature played a limited role in their clinical work. In response to a question about why he did not ask his patients about nature, Participant 1, the least experienced of the group said: "Truthfully, I don't ask because my supervisors wouldn't approve. It's too far outside the realm of what I'm supposed to pay attention to, which is mostly what's happening in the transference." Participant 12 had this to say about the dissonance:

When we're learning to be clinicians we're not asked to think of it that way. The frameworks we're given--even the ecological model, which is the model that I think, comes closest to nature--stops at a community-assisted level. The outer circle of nature and our experience in the environment isn't articulated in the framework. ...It's just absent from how we think about our intervention strategies. The moment you put something on the outer ring of that ecological model, for instance, people expect that we can intervene at that level and nature is something that we just feel is kind of "out there" like it may not be something we can impact, which is interesting, I guess, and a bit contradictory now that I think about it.

Despite this stated absence of nature within the body of clinical work conducted by many of the participants, several commented on their dissatisfaction with this fact and noted increased comfort and confidence when nature became part of the treatment. Participant 7 said:

When I notice that people who've had those sorts of experiences in nature and who have a capacity to relate to nature, to get a spiritual connection or charge, I tend to relax more as far as my confidence in their human process, knowing they have access to something that will be a useful support throughout their lives. That confidence in them, as a result, impacts the way we relate in therapy. I don't think it always has to manifest in the outdoors, but it's something that piques my interest so easily that having that reverberation in the relationship helps deepen the intimacy and creates more sense of connection, which positively affects the relationship.

Participant 8 spoke of the reasons behind incorporating nature into clinical work in a similar way, stating:

I feel more comfortable in that environment and I know that when I feel more comfortable and more at home, that's part of what I bring to the relationship and I can convey that to them... I bring a level of containment, peace and connection and that is helpful to them.

Finally, Participant 11 spoke of the effects of this dissonance between nature and clinical work noting that it ultimately led to her ending a long clinical career to pursue environmental sustainability advocacy:

The truth is, my husband was also a psychotherapist and in 2007 we took a trip to the rainforest. There was something about that trip which made me really get the width and breadth of the world and made me not want to sit in my office doing individual psychotherapy for the rest of my life. It felt much more expansive than that. I actually wanted a bigger arena. The drudgery of doing work in that setting in the city became too much to bear and too out of line with my values. So we quit. We closed our office in

2009 and we moved out of the city and we've been semi-retired since then and busier than we've ever been with the organizations we're involved with.

There may be a connection between distance from nature pathology and mental illness.

Seven participants referred to their belief that our culture's relative distance from nature stating a belief that this separation from nature was a potential risk factor for mental illness and pathology that may be contributing to mental health concerns. Participant number 5 said the following:

Every 5 years or so it seems like people get a notch more disturbed. This has been consistent since I finished my residency in 1972. I think there's at least a correlation during that period that there's been less nature available; cities and suburbs expanding and people have spent less and less time in nature. I think Jung's Idea was that the lack of involvement with nature was responsible for degradation in mental health.

I doubt that it's the only factor alone but I think that's an important one."

Participant 10 also stated this perspective and offered a terser summary: "As a society we're disconnected from nature. ...I would say that contributes to our psychological pathology by creating a schism within us." After discussing dissatisfaction with the definition of nature that I had offered, participant 12 paused and ruminated on the implication that human beings were separate from nature:

...umm...uh...(5 second pause) For whatever reason I'm starting to think about the climate and climate change. I think there's a chance that we're perilously close to us as humans wreaking real havoc here, which suggests that we might be, or might feel apart from nature, and are causing great risk to nature as a result of that feeling of separateness. Therein lies the problem for us since we're a part of it.

Participant 12 also added that this separateness from nature, particularly as clinical work tends to be, was a “sad commentary” on the state of our clinical professions and our culture as a whole.

The interview had an impact on the participants. Aside from the direct commentary on nature and psychological health that arose from the interviews, six participants reported the interview itself to have been stimulating. Each of those six participants made some explicit statement that conveyed that the interview itself had helped them access thoughts, feelings or ideas that they had about nature and psychological health that they hadn't previously voiced. Participant 12 shared the following thoughts at the end of the interview:

It's raising both really comfortable feelings about how restorative nature is and what it's meant for me, and also raises uncomfortable feelings about “is there a different way to think about this?” as it relates to the work we do, why we do it, how we do it and for what end for people. Overall, this really made me start thinking about some things I take for granted.

Participant 1 ended the interview by saying: “This has been very interesting. It's stimulated a lot of thoughts that I think I had been thinking for a while but just never articulated.” Participant 10 said after the interview was complete:

Before you go, I just want to say that I think it may have been fated that I speak to you. The person who forwarded me your recruitment letter is someone I respect greatly and I'm so glad we had this conversation. It's given me much insight about my clinical work and I'm certainly going to be affected moving forward with my practice.

Participant 11 followed up with an e-mail the day after the interview, recommending books I might be interested in and other clinicians I might speak with. The email stated: “After we talked

I realized I had thought/felt much more about this than I was able to access when I talked with you. It's like we opened up a whole lot of material..."

CHAPTER V

Discussion

This study set out to answer the questions: *is nature important to psychological health? What role(s) does nature play in clinical treatment and assessment?* The findings suggest some interesting answers with regard to these questions, but there is also ample room for theoretical interpretation of the findings from some of the perspectives that have been outlined in the literature review (Chapter II). This chapter will discuss the findings with respect to the research questions and implications for further research, while also drawing from psychoanalytic and psychodynamic theories to enrich the interpretation of their significance. I've chosen these particular theories to add to this discussion because they, in the author's opinion, they provide a framework for a robust understanding of the study's findings.

The most ubiquitous finding of the study happens to also have significant implications on the research question: nature was found to be important to psychological health, but with limitations. The first example of this finding appeared in clinician's reports of nature's importance to their own lives. Participants unanimously reported that nature was significant in their own personal lives but also stated that it played a limited role in their clinical work. While the degree to which nature was significant and the ways in which nature played a role in clinician's personal lives varied, all twelve participants confirmed nature's importance to their own psychological health. Just as the participants' personal experience of nature varied slightly, so too did the role of nature in their clinical work. Some made efforts to incorporate nature into their private or agency-based practice but nonetheless, each participant reported that nature's role

in their clinical work was limited. Even participants who had stated nature to be integral to their own well-being nature was at best, only a small part of their clinical work.

Participants also reported encountering limitations of nature's utility in clinical practice. Nature was found to only be pertinent with certain clients and in certain situations where it was clinically indicated. For a direct answer to the first research question, *is nature important to psychological health?* The data would seem to reply: *Yes, but it depends on the client.* In keeping with a client or patient-centered approach to treatment, each participant indicated that they would not impose nature into the treatment of any client who did not welcome it or did not indicate an interest in incorporating nature into the treatment.

This dependent quality of nature's role in psychological health and psychological process begs for further inquiry while also alluding to further questions about the second research question: *what role does nature play in psychological health?* While some participants speculated on the reasons why participants had different relationships to nature there was no clear agreement on what might account for this observed difference in response. Participants agreed only that there were some people for whom nature was an effective tool for treatment or assessment and some people for whom it was not. Only one of the participants ventured to say that nature *could be* of great clinical significance for anybody, if that person(s) would be open to the place "within themselves where nature exists". Even though two participants referred specifically to trauma as an indicator for nature's clinical indication in treatment, this perspective was not expressed widely or specifically enough to warrant presentation as a theme within the data. It is however, worthwhile to mention as a potential explanation for the ubiquitous perspective that nature was useful for some, but not for others.

This emergence of this theory of connection between presence of trauma and nature's efficacy indicates a specific area of future research. Future studies might be driven by the following questions that remained unanswered by this study: Why is nature effective for some people and not for others? Why is nature effective in the treatment of some psychological issues and not for others? Is there correlation between the efficacy of nature-based treatments and the presence of trauma? The answers to these questions would not only provide valuable insight into the clinical utility of nature in the treatment of trauma, but could also provide insight into the function of nature in the everyday existence of less severely affected, high-functioning individuals, many of whom (including the author) frequently turn to nature for some psychological relief. These questions seem to indicate the utility of a controlled study comparing the efficacy of nature-based treatment and non-nature based treatment of individuals with and without histories of trauma.

Another perspective that could provide valuable insight into understanding how nature interacts with different people's psyches in different ways originates in the theories of the founders of psychoanalytic theory, Freud and Jung. One of the most basic assertions that Freud made was that there might be things that we think and feel that we might not be aware of (Freud, 1901). Without much exploration of what those thoughts are, if we take the basic premise of Freud's assertion to be true we can add to our understanding of the differences in how and for whom nature is pertinent to clinical work. Taking this perspective on the data, one might wonder about unconscious processes at work within relationships to nature.

Jung believed firmly that nature played a significant role in unconscious symbolism. He proposed that unconscious mental structure is embroiled with symbols that are taken from the natural world (Jung 1964). This aspect of nature is explored within the Literature Review

(Chapter II), and the direct reference to nature's symbolic value of nature supports the validity of this perspective. Jung (1977) writes:

Through scientific understanding, our world has become dehumanized. Man feels himself isolated in the cosmos. He is no longer involved in nature and has lost his emotional participation in natural events, which hitherto had a symbolic meaning for him. Thunder is no longer the voice of a god, nor is lightning his avenging missile. No river contains a spirit, no tree means a man's life, no snake is the embodiment of wisdom, and no mountain still harbors a great demon. Neither do things speak to him nor can he speak to things, like stones, springs, plants, and animals. He no longer has a bush-soul identifying him with a wild animal. His immediate communication with nature is gone forever, and the emotional energy it generated has sunk into the unconscious.

Although Jung has approached this subject from the negative perspective—by highlighting the detrimental effects of detaching from the symbolic power of nature—his statement offers compelling support for the psychic value of nature. To Jung, the symbolic quality of nature that participants expressed fits within his understanding of the collective unconscious.

References to symbols and nature's capacity to aid the process of symbolization, such as participant 12's description of a client "floating in a canoe without a paddle" have the ability to allow individuals to access otherwise unconscious material. As participant 12 theorized, the psychotherapist could employ the symbolic value of nature in a variety of interventions, including modalities that are often perceived as at odds with these psychodynamic perspectives such as Cognitive Behavioral Techniques. Nature's utility for clinical treatment may lie not only in its ability to reach individuals who may not otherwise respond to the treatment relationship,

but it may also provide access to therapeutic material that otherwise would remain difficult to symbolize.

Still, the exact mechanisms of nature's interaction with the psyche deserve yet even more focused attention. Since this study targeted a broad range of clinicians and not necessarily clinicians who had well-formulated opinions about nature's clinical value, it may have been limited in its ability to address this secondary research question of *how* nature is important to psychological health and hence, to clinical work. Future research should consider focusing on this question in all aspects of research design and implementation. As discussed in the Methodology section of this summary (Chapter III), this study was relatively self-selecting for participants who would contribute valuable data however, another potentially fruitful approach to researching this subject (particularly the secondary question of *how* nature is important to psychological health and clinical work) might be to alter recruitment to focus on a more carefully selected sample with regard to their ability to comment on the subject. This study focused on clinicians who only had an implied interest in the subject by way of their interest in participation and that may not be in the best interest of future studies that focus more directly on *how* nature is relevant to clinical practice.

In addition to highlighting nature's utility for some individuals, the data also underscored the ambiguity of whether or not human beings are a part of nature and highlighted a linguistic paradox that had major implications on this particular study and on any further research in this area. To ask the question: *is nature important to psychological health?* or to simply establish that there is such a thing as "nature" implies that the subject of this study is something separate from human beings. No matter how carefully crafted the definition of nature that was given, its simple embodiment within the word "nature" implies separateness and alludes to humans being

something different, thus having a different signifying word. Hence, it would seem that the research question behind this study implied a certain degree of separateness, about which there was some uncertainty within the data. Only one participant affirmatively stated that humans were separate from nature. However taken as a whole, the data displays uncertainty about human's separateness from nature. This uncertainty was either expressed directly by participants or implied through disagreement in the participants' perspectives.

It would seem that the variety of perspectives about if and how human beings are separate from nature deserves a qualitative study of its own. Similarly, an unexpectedly large portion of the interview was spent discussing this issue with participants which, by itself, also suggests that further research about the various perspectives on nature—what constitutes it? and how are human beings a part of it, or not?—is warranted.

It's impossible to extrapolate any concrete reason for this particular ambiguity—that is, the ambiguity of the participant's opinions about separateness vs. connection to nature—however, the reasons for those opinions were not immediately the focus of the interview and might not have emerged within the data as a result of the study's focus being on the more primary question of nature's role in psychological health. With regard to the research question at hand, the pertinent contribution of this theme lies within the answer to the question that was not adequately answered: “Why the presence of ambiguity about humans' place in nature?” Speculating on potential answers, we could hypothesize that the varying opinions had something to do with their own experiences in nature. Were they positive? Negative? How might their own experiences have influenced their opinions about separateness or connection?

Participant 7 speculated on the reasons why various people had various reactions to and feelings of separateness or connection to nature:

...a lot of times they're just not exposed to it. Going for a hike is intimidating so it's not something they gravitate to and there's a sense of anxiety and a need to keep their environment ordered and familiar that supports the way they already live their lives. So doing something like going for a hike is somewhat intimidating. They might not have access to appropriate footwear and it may not be a part of their lives. So there are social and cultural barriers too.

While this statement is by no means a complete summary of why certain people feel a connection to nature and others do not, it offers some beginnings of how we might think about differences in experiences of nature and why they exist. Perhaps, as participant 7 noted there are cultural barriers to relating to nature, but it is likely that much more than culture is at work here.

The Literature Review (Chapter II) of this summary reviews some theories that might offer some insight here, such as those from the field of ecopsychology, which contends that our interconnectedness with nature is essential to our psychological and physical wellbeing. Ecopsychologists argue that human beings are innately interconnected with nature such that the wellness of our environment is coincident with our own mental and physical wellness. The answer that ecopsychology might give to this question might have something to do with whether or not one believes that human beings were a part of nature or not. Ecopsychologists would argue that this connection is real and true, (i.e. Human beings are not separate from nature) and that some people simply aren't privy to this reality. Ecopsychology fails in this regard to offer an adequately nuanced explanation of the reasons for these differences of experience and opinion. Furthermore, ecopsychology does not do justice to explain the psychological processes that may account for this difference.

The psychoanalytic perspective and its focus on unconscious process might have some valuable insight into this phenomenon. The psychoanalytic perspective assumes that there are always unconscious processes at work. The practice of psychodynamic and psychoanalytic psychotherapies is based on the theory that an individual's affective presentation, sometimes regardless of their explicit statements, is indicative of psychological and often unconscious processes (Berzoff, Flanagan and Hertz, 2011). Freud (1901) described various instances where unconscious process was evident in conversation. Freud describes the ways in which a combination of one's actions and words may be interpreted to formulate an understanding of the unconscious process that are at work. This perspective would thus assume that these processes are present in our relationship to nature and perhaps also in the formulation of perspectives of nature as separate, or not. Evidence of uncertainty such as is present in the data with regard to whether or not humans are a part of nature, could aptly be interpreted as evidence of unconscious conflict.

Similarly, we might apply this theory to understanding other findings in the study. As noted in the Findings (Chapter IV), several participants reported being stirred by the conversation about nature and psychological health. While a few participants directly stated being impacted by the conversation, there were no statements in the data that gave any insight into the reasons for this impact. The glaring question about this theme is: *why?* Why did participants experience the interviews as impactful? Why did speaking about nature with regard to their personal lives and clinical work, lead to a surprising number of unarticulated thoughts and feelings? The psychoanalytic theory of unconscious process could be simplified as the theory that we think and feel more than we might be aware of (Freud 1901). While we cannot say with certainty exactly what unconscious process led to that participant's experience of the interview as impactful,

applying psychoanalysis' theories of unconscious process offers an intriguing explanation for this phenomenon, namely, that participants' emotional response to the interview was the result of unconscious processes with relation to nature and clinical work. More simply, it may be that participants thought and felt more about this topic than were immediately aware of, or as one participant put it: "This has been so interesting. I had so many thought and ideas about this that I'd just never been able to put together."

Another possible explanation, one that cannot be ruled out, is derived from a potential dynamic between myself as the interviewer and the clinician as the interviewee. Although I can see no direct evidence of this in the data, it may have been possible that my biases were present as I conducted the interviews and that some unconscious process to confirm my biases may have drawn participants. For instance, it is possible that questions could have been interpreted as indicating my positive view of nature as a clinical tool and, in fact, some amount of that assumption may have been latent within the very fact that I was choosing to conduct such a study. With this assumption in mind it may have been possible that participants could have been drawn to answer questions in a manner that I was hoping for. I cannot rule out--even without direct indication of this phenomenon--that one or more participants may have wanted to "give me what I was looking for".

Nonetheless, the psychoanalytic perspective seems to lead to an interesting generalized hypothesis: there might be a great deal that people think and feel about nature that is not immediately available to conscious, rational thought. In keeping with psychoanalytic theory, we might also assume that there is a reason we are unable to see or experience those thoughts and ideas, and that psychic structure may be oriented around maintaining this state and keeping nature in the blind spot. Unfortunately for the sake of future research, testing for the presence of

unconscious process is nearly impossible with current research methods. Doing so would require detailed and evidence-based criteria that unconscious process is occurring, something that is extraordinarily difficult to create. Nonetheless, exploring various perspectives on human being's role within nature—are we separate or not—would provide valuable information regardless of the theoretical hypothesis that drives any such study or exploration.

This study also highlighted a bold and radical idea; that large-scale increases in mental illness are correlated to large-scale decreases in the quality of our relationship to nature. The idea that psychological health could be directly tied to environmental health is one that grates against the very fabric of the generally accepted conceptions of modern western psychology. While philosophers and ecopsychologists have often expressed the idea that mental health is dependent on the quality of relationship to nature, it is less often mentioned with reference specifically to clinical practice. It's presence as a theme in the perspectives of practicing clinicians lends credence to the entirely non-clinical “condition” made popular by Richard Louv, known as Nature Deficit Disorder (Louv 2005). Conversely, if this theory holds water it would follow that improving relationships with nature can improve psychological health.

Psychoanalyst and clinician Jerome Bernstein (2005) writes of a similar “disorder” from a more clinically oriented perspective. He refers to the “Borderland” state of mind, noting nature's direct physical and psychic impacts on people in such a state:

They feel (not feel about) the extinction of species; they feel (not feel about) the plight of animals that are no longer permitted to live by their own instincts, and which survive only in domesticated states to be used as pets or food. ... They experience the rape of the land in their bodies, they psychically, and sometimes physically, gasp at the poisoning of the atmosphere.

Bernstein explains the relative radical quality of such a perspective as originating in the blind spots of empirical approaches to understanding the mind. To Bernstein, there is nothing rational about his perspectives, but there is also nothing impossible. He presents the hypothesis that western traditions, particularly western approaches to understanding psychology and mental health are largely ignorant to this phenomenon: “More often than not, Borderland phenomena, if experienced at all, are simply dismissed out of hand or labeled crazy” (Bernstein, 2005). A significant number of the participating clinicians in this study stated their perspective that mental health and relationship to nature are correlated. As we attempt to make use of this finding, we would be well served to consider the limitations of our system of knowledge. Just as any theory presented in this paper, the idea that truth is rational, observable and measurable by the human eye and mind is a theory like any other. There may be things that escape our rational awareness and if, as this finding suggests, what escapes our understanding is something of such a magnitude, we ought to consider re-evaluating our assumptions. As participant 5 aptly noted: “Physicians bled patients for hundreds of years before they realized it was only effective for a tiny number of diseases.”

Conclusion

There are many ways to focus on the findings of this study and so many indications for specific future research of value, most of which I hope I have addressed adequately in this chapter. What’s left for this discussion are some remnant observations about the research process and some broad-based impressions of what the data communicates in light of the body of literature and empirical research on related subjects. Also, in the spirit of qualitative research, my own experience as researcher conducting an empirically based study of something that typically transcends the empirical realm is not to be overlooked.

Like many of the participants, I too hold the tension of a deeply felt connection to nature and the feeling that such a connection can't or ought not play a role in sound clinical work. The fact that this sentiment was so ubiquitous among participants indicates that there is significant potential for enhanced integration of nature into theoretically sound clinical practice, with respect to both treatment and assessment. This rift between felt experience of nature and clinical practice also warrants further exploration into the origins of this rift, with particular focus on the effects on clinical work. If we, as clinicians feel that a relationship to nature is so important in our own lives, are we limiting the benefits we can offer to our patients and clients or perhaps even harming them in some way by shunning the role of the natural world in our clinical work?

In participant 12's discussion of nature's place outside of an "ecological model" of treatment, the limitations of treatment models that do not incorporate nature were well articulated. If the "outer-most ring" of ecological treatment for an individual reaches only the community level, potential benefits from the relationship with the surrounding environment are not redirected back toward the individual. In the spirit of the ecological model's approach to treatment (and also its name) we ought to ask the question: What cares for the community, and within what structure is the community contained? What benefits are we not taking advantage of as a result of neglecting this outermost ring of ecological theory?

While there are many therapeutic modalities that currently work with nature (wilderness therapy, equine assisted psychotherapy, ecotherapy, etc...) studies of these modalities have tended to lack clinical rigor (Norton, 2010), which may have resulted in an unfortunate reputation of the modalities themselves lacking clinical acumen. Or, perhaps Bernstein (2005) is correct in stating that our broad-scale rejection of nature in accepted clinical practice has to do with nature's *irrationality*. Our current empirical abilities have a hard time describing the

efficacy and mechanisms by which nature works on the mind, rendering nature somewhat “not rational”. Still however, the glaring questions remain: why have we, as mental health practitioners, been as of yet unable to incorporate nature into sound clinical practice? Conversely, why does “sound clinical practice” tend exist separately from nature despite it’s ubiquitous role in so many clinician’s lives?

The ongoing exclusion of nature within mainstream and clinically accepted practice has led, in the case of these 12 clinicians and in myself, to a dissonance between personal life and clinical practice. Each responded differently to that dissonance: Some were more irked by it than others. A total of six participants expressed explicit discontent with this rift and five sought to incorporate nature into a private practice setting. One participant closed their practice in order to pursue a deeply felt importance of nature’s role in individual and community health.

Participant 5 characterizes a clinician who draws a significant amount from nature in their personal life, but whose clinical work has involved nature in limited amounts. Participant 5 stated that nature was “perhaps the most important relationship one could develop” but also claimed not routinely asking clients about their relationship to nature. In the spirit of critically analyzing clinical practice, it seems only appropriate to wonder: why it is that, in general, clinicians do not ask about what “may be the most important relationship”? It may be because the majority of clinical theory does not consider our relationships to nature to be significant, but as this study (and this theme in particular) suggests, this claim is dubious and worthy of thoughtful reconsideration.

Furthermore, participant 7 and 8’s descriptions of the effects of nature on the therapeutic dyad also urge our consideration of nature’s role in clinical practice. While there is some debate about the various functions of therapeutic alliance to the efficacy of treatment (Chalfin, 2002),

there is ample literature to suggest it is an important aspect of treatment (Horvath and Luborsky 1993). It would follow then that there could be a case made for nature's incorporation into therapeutic modalities if it could be there were an ample body of research that indicated that nature strengthens the therapeutic alliance. Anything that has a positive effect on the clinician's ability to relate to a client ought to be considered for its potential to positively augment treatment.

Similarly, according to psychoanalytic literature, a clinician's ability to contain the emotions of a client by creating a "holding environment" is perhaps the most essential aspect of any psychotherapeutic relationship (Ginot, 2001). Thus anything that improves a clinician's ability to hold a patient's troublesome emotions, past deprivations and fragmented self could be a real boon for therapeutic outcomes. While this theme suggests an interesting argument for nature's clinical utility in this regard, it does not establish more than a simple need for targeted research on this particular aspect of nature and clinical treatment. Specifically, it seems to point toward the necessity of a controlled clinical trial assessing nature's effect on clinician comfort and the therapeutic alliance as compared with clinical outcome measures.

One also cannot ignore the significant challenges of trying to capture the value of nature using any empirical process. I'm afraid that much of what is contained within this report, while certainly interesting, does not do justice to the emotionally rich and spiritually colorful experiences that countless people have had and will continue to have in relationship to nature. As one participant noted about the definition I so carefully crafted: "Sounds a bit dry. It lacks the color with which I experience nature".

My experience in completing this study might aptly parallel this phenomenon: I feel that there is inherently something missing from this empirical attempt to explain something that

might exceed the current limitations of our rational empirical approaches to understanding the human mind. It may be that this paradox is the central theme of this study and, perhaps, of our current paradigms in mental health treatment. It is very difficult to incorporate nature into rational, empirically based approaches to mental health treatment and assessment as it is into research. This reason-defying quality of nature and its interactions with the human psyche may be the simple source of the rift between the reason-based, medically-driven model of the clinical world and reason-defying nature. The medical model of mental health treatment makes little room for experiences that defy logic and empiricism, yet it seems that nature's clinical value continues to show itself while managing to elude empirical summary. At least, our understanding of how nature works on the mind may not have yet met the criteria to be welcomed into the clinical world with open arms.

It may be that Emerson and the nature writers chose a superior methodology for exploring this subject, one that did not rely so heavily on logical empiricism. These purely qualitative and first-hand methods may still be better at describing in psychological health. Close space! Yet, in a time when medicine--particularly psychiatric medicine as we know it--is being called into question (Belluck, and Carey, 2013) and the number of Americans seeking treatment for mental illness nearly doubled in the decade between 1996 and 2006 (NIMH), considering nature as a factor in our individual and collective mental wellness is as important as ever. As Clark (2008) writes as the director of the NASW:

We ask all of you to assist NASW at the national, state and local levels in finding ways to become more environmentally responsible. We have always taken pride in our unique perspective of "person-in-environment." It has never been more important that our definition of environment encompasses the natural as well as the social and economic

realms. Action in support of our environment must be central to our profession, to our association, to our practice settings, and to our lives.

Furthermore, other professional organizations such as the American Psychological Association are identifying human's relationship to nature as an important clinical issue by focusing on "climate change psychology". Doherty and Clayton (2011) outlined the psychological effects of climate change—a significant aspect of our modern relationship to nature—underscoring the urgency of addressing this relationship from a psychological perspective while also highlighting the psychological effects of our relationship to the environment.

Given this widespread support for a focus on the natural environment as it effects human beings and we effect it, what can we make of the fact that clinicians in this study unanimously reported a significant rift between their felt experience of nature and its place in their clinical work? What can be said about the gap in the literature's affirmative view of nature and its simultaneous disavowal of nature's clinical utility? What can and should be done about the fact that the majority of accepted clinical practice does not incorporate nature as a clinical factor in treatment or assessment? If clinicians in this study agree that their relationship to the natural environment is important to their own psychological health and this is consistent with the public opinions of two major governing bodies within the field of mental health, why then is nature not yet a more significant part of our clinical approach? It would seem that the field of Social Work and Clinical Psychology are currently out of touch with the publicly stated importance of nature to their missions.

So here again, as we interpret the findings of this study we encounter the dissonance that seems to characterize so much of this study: between felt experience nature and clinical practice; between perspectives on separation with nature; between nature's utility for some and not for

others. It has become necessary to reiterate the new question: Why do we enact such a dissonance between ourselves and nature? Or perhaps, we might more aptly ask: Why do we conceive that nature is such a thing at all? As this study has shown, simply applying such a word to the concept of nature, as we often do, (and as this study is also guilty of) implies a certain separation from the subject we attempt to describe with such words.

Searles concluded his 1971 paper, *Unconscious Processes and The Environmental Crisis* by preceding Elizabeth Clark's call to social workers and making a similar call to psychoanalysts:

If you have found anything at all apropos among my various remarks in this elementary first effort, then I have made my initial point—namely, that we psychoanalysts must make some real contribution, along with our brothers in other fields of science, toward meeting the ecological crisis.

No matter what the explanation is for this rift and no matter what the rationale for closing it—whether it be as a result of this study, or at the urging of the field of Social Work, or Psychology, or from a paper by a late, great psychoanalyst written 44 years ago—there is much work to be done in this area of Social Work research and efforts to address the human relationship to the non-human environment from multiple disciplines are urgently needed. If we don't heed this call, we ought to critically examine our inaction and ask ourselves: *why not?*

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Appendix A
Institutional Review Board Approval Letter



School for Social Work
Smith College
Northampton, Massachusetts 01063
T (413) 585-7950 F (413) 585-7994

January 28, 2013

Benjamin White

Dear Ben,

Thank you for making all the requested changes to your Human Subjects Review application. Your project is now approved by the Human Subjects Review Committee.

Please note the following requirements:

Consent Forms: All subjects should be given a copy of the consent form.

Maintaining Data: You must retain all data and other documents for at least three (3) years past completion of the research activity.

In addition, these requirements may also be applicable:

Amendments: If you wish to change any aspect of the study (such as design, procedures, consent forms or subject population), please submit these changes to the Committee.

Renewal: You are required to apply for renewal of approval every year for as long as the study is active.

Completion: You are required to notify the Chair of the Human Subjects Review Committee when your study is completed (data collection finished). This requirement is met by completion of the thesis project during the Third Summer.

Good luck with your project.

Sincerely,

A handwritten signature in blue ink that reads 'Marsha Kline Pruett / MKP'.

Marsha Kline Pruett, M.S., Ph.D., M.S.L.
Vice Chair, Human Subjects Review Committee
CC: Claudia Bepko, Research Advisor

APPENDIX B
Standard Recruitment Letter

Dear potential participant,

My name is Benjamin White and I'm candidate for a Master's Degree in Social Work from Smith College School for Social Work in Northampton, Massachusetts. I'm searching for mental health practitioners to participate in a study about nature and psychological health.

Participation involves a commitment of 30-45 minutes for an interview about nature and psychological health during which you'll be asked to answer a series of questions about your personal and professional experience as they have informed your opinions about this topic. In order to participate it is asked that you meet the following criteria:

- 1) Hold a master's-level (or higher) degree in a field of mental health
- 2) Have at least one year of post-graduate clinical experience
- 3) Currently hold a clinical license in the state in which you practice OR have held a license in any state for at least two consecutive years in your career.

The study will provide a confidential venue for you to discuss your perspectives on the role of nature in psychological health. If you meet these criteria and are interested in sharing your perspectives on this topic, please consider volunteering for an interview by responding via e-mail to: _____.

If you have further questions about eligibility or any aspect of the study, please contact me also at the same address. If you choose not to participate no further action is required and you may simply disregard this letter. In any case, I thank you for your time and will look forward to hearing from you if you are interested in participating.

Sincerely,

Benjamin D. White

MSW Candidate, August 2013

Smith College SSW

APPENDIX C
Letter of Informed Consent

Dear Potential Participant,

My name is Ben White and I am a candidate for a Master's degree in Social Work (MSW) at the Smith College School for Social Work (SCSSW) in Northampton, Massachusetts. I'm conducting this study to research the connection between nature and psychological health by surveying licensed clinicians about their opinions and clinical experience regarding the significance of nature to mental health. The data collected through this study will be analyzed and summarized in an MSW thesis that will be made available to the public through the Smith College Libraries and presented in a public forum sometime during the summer of 2013. The thesis may also be submitted for publication.

As a voluntary participant, you will be asked to participate in an interview either in-person or via internet videoconference, that will last roughly 30-45 minutes. During the interview, you will be asked questions about your opinions regarding the clinical significance of nature, your personal experience with nature and your personal and family history. You are being asked to participate in this study because you meet the following criteria and because you have agreed to participate:

- 1) Hold a graduate-level (or higher) clinical degree in a mental health field.
- 2)
 - a) Have a valid clinical license in a field of mental health
 - OR
 - b) have held a license for a period of at least one year at some point during your career.
- 3) Have at least one year of post-graduate clinical experience

To participate in the interview, you will also be asked to meet in one of the following ways:

- A) In-person at a location of your choosing
- B) In-person at a private office in Bennington, Vermont
- C) Via internet-videoconference
- D) Via telephone

I will conduct the interview, which will be recorded using a digital audio device and I, the sole researcher of the study, will personally transcribe these recordings at which point the audio recording will be deleted. Both the written transcript of the interview as well as the audio recording will be kept separate from any identifying information to ensure your identity remains confidential.

You may find that your participation in this research may be enjoyable and you may benefit from having a venue to discuss your opinions and feelings about the connection of nature to psychological health. The interview will provide a confidential venue to discuss any ideas or experiences that pertain to nature and psychological health thus if this is an area of inquiry you find interesting, the interview may help you to clarify and further formulate your ideas about this subject. No additional compensation will be provided for participants.

While this study presents relatively little risk for emotional harm to participants, you should be advised that the study will ask you directly about the importance of nature to psychological health as it pertains to both your personal and professional life. You are thus encouraged to consider any potential effects of your participation including, but not limited to any issues of your personal well-being, physical emotional or otherwise, and your professional integrity, specifically in regards to confidentiality as a clinician. If you choose to speak directly about a client please take all precautions to secure their identity and uphold your responsibility for confidentiality.

If you feel that participating in this study will cause you harm or compromise your professional integrity, or cause any other adverse affects not heretofore mentioned, you are encouraged to decline participation. It is assumed that your clinical training requires a level of self-awareness that will result in an informed decision of whether or not to participate in this study. Furthermore, it is assumed that you will uphold any and all professional standards in your field of practice, particularly in regards to confidentiality. If your participation should result in any emotional distress or harm it is further assumed that as a clinician you are aware of various therapeutic resources. Referrals to mental health resources will not be provided. If you elect to participate, you have the right not to answer any or all of the questions within the study for any reason you chose. You will have the opportunity to withdraw your responses from the study for any reason within 5 days of completing the interview.

The data gathered in this study will be kept separate from any identifying information that could connect your responses to your identity. Identifying information that is gathered during recruitment and correspondence prior to the interview will be kept separate from all data gathered during the interview. This identifying information will only be available to the researcher prior to the interview and will not be disseminated to any persons for any reason. The Smith College SSW requires the study to be overseen by an advisor whom will have access to the data only in circumstances that require the advisor's oversight. As previously noted, the data will be compiled in a paper, presented in a public forum and made available through the Smith College Libraries. The data will be presented in aggregate and excerpts and quotes from your responses may be used to illustrate any patterns in the data. Any such usage will not include any personal identifying information. All data from both the survey and the follow-up interviews will be kept in a secure location (a password protected location for digital information such as interview recordings) as required by Federal guidelines. Should the research project require retaining the data for longer than a period of three years from their creation, then they will remain protected and will be destroyed at a time when they are no longer necessary for the purposes of this study.

Your participation in this study is entirely voluntary and you may choose to withdraw from participation at any point during the collection of data. Your participation in this study does not require you to answer any or all questions therein. You may choose not to answer any or all of the questions posed to you throughout the study and you may withdraw your responses from the interview *only within 5 days of the interview's completion*. If you choose to withdraw your interview responses from the data, please contact me via e-mail at [email omitted]. If you have any concerns regarding your rights or any aspect of the study, please contact the Smith College School for Social Work Human Subjects Review Committee at [phone # omitted]. If you choose to participate in this study, please follow the instructions included in the e-mail to which this letter was attached. You will be asked to sign this letter before beginning the interview. If the interview is conducted in person, a blank copy will be available for you to sign prior to the

interview. If the interview is conducted via videoconference, you will be sent a stamped envelope and asked to print and return a signed copy of this letter.

YOUR SIGNATURE INDICATES THAT YOU HAVE READ AND UNDERSTAND THE ABOVE INFORMATION AND THAT YOU HAVE HAD THE OPPORTUNITY TO ASK QUESTIONS ABOUT THE STUDY, YOUR PARTICIPATION, AND YOUR RIGHTS AND THAT YOU AGREE TO PARTICIPATE IN THE STUDY.

Signature of Participant

Signature of Researcher

Please retain a copy of this agreement for your records.

Benjamin White

Smith College School for Social Work

[E-mail address omitted]

APPENDIX D

Interview Guide

The following questions will serve as a general outline for the 30-45 minute interview with participants. The guide is intended to provide a general structure for the conversation and is not intended as a definitive format for every interview. There may be questions added or omitted from this guide during each interview to encourage the natural flow of conversation and allow participants the opportunities to expand on particular topics as desired. The italicized portion below will serve as the basic script to begin the interview:

Have you read and understood all the conditions associated with this study and been given the opportunity to ask questions about the nature of your participation to Smith College School for Social Work?

I'd like to remind you that you may choose not to answer any or all of the questions in this interview. After the interview has been completed, you will also then have the opportunity to withdraw your answers within 5 days by sending a request for withdrawal to [e-mail omitted]. Do you understand the conditions of your participation and certify that your participation in this study is voluntary?

Let's begin...

Part One

-What type of clinical degree do you hold?

-Have you completed any other certifications, post-graduate or post-doctorate clinical training?

-Please describe the nature of your current and past clinical experience. A) How long have you/were you in clinical practice? B) In what types of settings have you practiced? C) Have you worked with any particular populations more than others? D) Have you taught in an academic setting or served as a clinical supervisor?

Part Two

1) I'm going to offer definitions of "nature" and "psychological health". *Please listen carefully to the following definitions:*

Nature is: "The interconnected system of plants, animals, and meteorological and geological bodies and phenomena which compose the environment with and within which human beings exist and interact."

Psychological health is: "The internal mental condition that precipitates one's spontaneous and non-pathological functioning within their environment wherein he or she promotes life, longevity and trends toward the expression of their own authentic qualities those of their environment".

Can you share your reactions to those definitions? Is there anything you agree or disagree with or would change?

- 2) In the course of your clinical work, have you had any experiences with clients that would indicate a connection between nature and psychological health? Please describe any such experiences.
- 3) Have you observed either a difference in the level of overall psychological health or a difference in clinical outcomes with clients who have a more robust relationship with nature? Please describe.
- 4) Do you think that examining a person's relationship to nature could be valuable in formulating a clinical assessment of a client? Please explain.
- 5) Does the way in which a person relates to nature provide any insight into their psychological health or psychological functioning? Please explain how it does or does not, in your perspective.
- 6) Do you routinely ask clients about their interactions with nature or their activities related to nature? Why or why not?
- 7) Has nature played a significant role in your own psychological health? Can you elaborate on nature's role in your own psychological health?
- 8) Do you feel that you had a relationship to your natural surroundings during your childhood? Please explain or say more.
- 9) What is the role of nature in your life today?
- 10) In your perspective, does nature play a role in human psychological health? Please explain your perspective.

Part Three

- 11) Is there anything that I've neglected to ask that you think is important to this topic?