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## Climate change on the therapist's couch : how mental health clinicians receive and respond to indirect psychological impacts of climate change in the therapeutic setting

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Lily Seaman  
Climate Change on the Therapist's  
Couch: How the Topic of Climate  
Change is Addressed in the  
Therapeutic Setting

### **ABSTRACT**

The scientific community has reached near consensus that climate change (also known as anthropogenic global warming) poses a significant and potentially dire threat to the ecosystems upon which we, as humans and as a society, rest. While climate change is most often discussed in terms of its effect on the natural environment, its psychological impacts are also expected to be immense and varied and include indirect distress related to the threat that climate change poses. The purpose of this study was to explore how this kind of indirect distress gets talked about in the therapeutic setting. Using a mixed methods online survey of mental health clinicians across the US, the study examined how and how often the topic of climate change comes up in therapy, and how therapists receive and respond to comments and conversations about climate change with their clients. The results indicate that at this point climate change is not talked about frequently or by a significant number of clients, but the topic certainly arises and can be a source of significant distress for some clients. Moreover, the findings suggest that the internal reactions that therapists have to the topic of climate change may impact how they receive and respond to clients who talk about it in therapy, and also indicate that although the majority of therapists believe climate change is relevant to their field, many do not feel that their training has equipped them to deal with the subject.

**CLIMATE CHANGE ON THE THERAPIST'S COUCH: HOW THE TOPIC OF  
CLIMATE CHANGE IS ADDRESSED IN THE THERAPEUTIC SETTING**

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

Lily Seaman

Smith College School for Social Work  
Northampton, Massachusetts 01063

2016

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## CHAPTER I

### INTRODUCTION

Climate change, or anthropogenic global warming, is primarily discussed in relation to the physical world that we inhabit, but it is having an increasingly significant impact on our inner lives as well (United Nations Framework Convention on Climate Change, 2015; Roser-Renouf, Maibach, Leiserowitz, Feinberg, Rosenthal, & Kreslake, 2014; Swim et al., 2009). This project considers the indirect psychological ramifications of climate change and explores how climate change is talked about in the therapeutic setting.

Although the devastation caused by climate change is generally talked about in the future tense, we are already beginning to experience, as a planet, the effects of anthropogenic (human-caused) global warming. We see this in increasingly extreme weather patterns, droughts, forest fires, food shortages, glacial melting, rising sea levels, increased rates of animal extinction, coral bleaching, and toxic algae blooms due to rising temperatures in our oceans and lakes. The severity of these conditions is projected to increase dramatically in the future even if drastic changes in human activity are made (Pachauri, et al., 2014; Ceballos et al., 2015; Jamail 2015a; Jamail 2015b; Doré 2015; Swim et al., 2009; Coyle & Van Susteren, 2012).

That we are facing significant and, by most accounts, irreversible changes to our environment is not a secret; scientists have long warned us that we must make large-scale societal changes to significantly reduce carbon emissions in order to avoid ecological disasters related rising sea levels and increased global temperatures (Pachauri & Reisinger, 2007). However, many nations, particularly large carbon producing countries like the US, have been slow to act on these warnings to detrimental effect: as Tim Christian Meyers (2014) noted,

Despite over two decades of overwhelming scientific consensus regarding the enormity of climate change, and several ambitious international conventions attempting to address it, emissions have dramatically increased during this time, not decreased. (p. 54)

Unfortunately, because of the exponentially self-reinforcing nature of climate change, many of these losses cannot simply be won back.

For example, looking only at sea-level rise, Benjamin Strauss, Vice President for sea level and climate impacts for Climate Central, recently stated, "In our analysis, a lot of cities have futures that depend on our carbon choices but some appear to be already lost" (Fang, 2013). As example, Strauss noted that "it is hard to imagine how we could defend Miami in the long run.' The low-elevation city's porous limestone foundation means that sea walls and levees won't help. "New Orleans is a really sad story,' he adds. 'It is a lot worse looking than Miami.' Under all scenarios, Florida is the most affected state. California, Louisiana, and New York trail slightly behind" (Fang, 2013) As President Obama stated in a speech made during his recent trip to the arctic,

Climate change is no longer some far-off problem; it is happening here, it is happening now...we will condemn our children to a planet beyond their capacity to repair: submerged countries, abandoned cities, fields no longer growing... We're not moving fast enough. (Goodell, 2015)

The toll that climate change will have on human activity is projected to be massive. Paraphrasing one of the climate scientists he interviewed for a recent article on the emotional effects of climate change on scientists, Richardson (2015) notes,

Long before the rising waters from Greenland's glaciers displace the desperate millions, he says more than once, we will face drought-triggered agricultural failures and water-



security issues—in fact, it's already happening. Think back to the 2010 Russian heat wave. Moscow halted grain exports. At the peak of the Australian drought, food prices spiked. The Arab Spring started with food protests, the self-immolation of the vegetable vendor in Tunisia. The Syrian conflict was preceded by four years of drought. Same with Darfur. The migrants are already starting to stream north across the sea—just yesterday, eight hundred of them died when their boat capsized—and the Europeans are arguing about what to do with them.

The field of Social Work has long understood that the human psyche is deeply tied not only to our emotional lives, but to our biological and environmental circumstances as well, so it follows logically that the projected losses and large scale climate disruptions that we face as a species will have emotional and psychic ramifications for many who live amidst anthropogenic climatological change. And yet, despite the fact that we have been warned for decades of the dire situation we face as a planet, the fields of psychology and social work have been relatively silent on the matter and have done little to prepare.

However, at least within the field of psychology, that silence has been broken. In 2009, following a devastating and comprehensive report by the United Nations-sponsored Intergovernmental Panel on Climate Change (IPCC) two years prior, the American Psychological Association (APA) issued a report entitled “Psychology and global climate change: Addressing a multi-faceted phenomenon and set of challenges” which urged the field of psychology to engage seriously with climate change in order to respond effectively to what they projected would be immense and varied mental health needs of the population as a result of global warming (Pachauri & Reisinger, 2007; Swim et al., 2009). Two years later, the National Wildlife Federation (NWF) issued a report of their own on “The psychological effects of global

warming on the United States: And why the U.S. mental health care system is not adequately prepared” (Coyle & Van Susteren, 2012). Similar to the APA’s report, the NWF publication was a call to action to those working in the field of mental health:

To those who would deny, dismiss or just fail to envision the psychological impacts global warming, we urge you to take a deeper look. We may not currently be thinking about how heavy the toll on our psyche will be, but, before long, we will know only too well. A warming climate will cause many people, tens of millions, to hurt profoundly. (Coyle & Van Susteren, 2012, p. ii)

At its core, the purpose of this study is to take up this call to action to begin exploring more deeply the psychological impacts of climate change, particularly with regard to indirect psychological impacts. As the NWF and the APA reports point out, the number of those experiencing indirect psychological distress around climate change may currently be small but will grow considerably in the coming years (Swim et al., 2009; Coyle & Van Susteren, 2012). According to a recent annual survey on climate change perceptions in America, a little over 50% of Americans are “somewhat worried” while only 11% say they are “very worried” about global warming (Roser-Renouf, C. et al., 2014). No further data exists to indicate how many of those roughly 35 million “very worried” Americans are experiencing psychological distress. However, the emotional impact of climate change can already be seen: in his interview with President Obama about climate change, Goodell (2015) noted,

When we were hiking at the glacier in Seward the other day, one of the rangers who works for the park said that more and more people are making pilgrimages to see the glacier before it vanishes. Some people even kiss it goodbye. And she said there's a

sadness in a lot of the people who go there because they know the world is changing so quickly as a result of climate change.

The APA and NWF reports anticipate that more and more Americans will begin to experience and seek counseling for climate-change-related distress, so it is critical to begin looking at how such distress might show itself in a mental health setting and how clinicians respond to it, as well as what the current literature has to say about climate-change induced distress and psychological health (Swim et al., 2009; Coyle & Van Susteren, 2012). Using mixed methods to perform a combination of explanatory and exploratory research, my project will attempt to answer the question: How and how often do clients talk about climate change in therapy and how do clinicians receive and respond to comments or concerns raised by clients about climate change?

Within this broad research question, there are a number of sub-questions that I hope to explore. Quantitatively, I am interested in seeing how often therapists encounter the topic of climate change in their practice. For example, I will be looking at what percentage of therapists who participate in the survey have had clients discuss climate change in passing and what percentage have had clients discuss climate change in an emotionally significant way. Qualitatively, I am interested in hearing what those therapists who have had emotionally significant discussions with their clients around climate change think about those discussions. For example, do they find these discussions to be clinically relevant? Do they see a connection between emotional responses to climate change and diagnosis, personality trait, attachment style, and so on? Do they analyze discussions around climate change for latent content or consider them on their face?

The questions above are broad and, in the qualitative section, open-ended, because of the exploratory nature of the project. While there is a growing body of literature on the psychological ramifications of climate change, no empirical research has been published that explores how or if these issues are addressed in a therapeutic setting. As I will discuss in Chapter 2, there are a small number of theoretical and (to a lesser extent) empirical pieces within the literature on this subject that focus on intrapsychic responses to the phenomenon of climate change, which tend to be broken down into denial, apathy, anxiety and grief. However, while interesting analytic work has been done around denial and apathy as psychological defenses against feelings of alarm and distress, less has been written about *overt* expressions of alarm and distress (in the form of grief and anxiety, for example), and within this, only a handful of published works address how and if such expressions are made and responded to in the context of psychotherapy.

The purpose of this study is to begin filling this gap. If, as the APA and NWF reports contend, mental health clinicians are expected to see a significant increase in clients who are actively concerned with climate change (and looking to therapy as a place to address these concerns) it is important to understand how mental health clinicians are currently conceptualizing and addressing this issue and what support or training is needed to further prepare clinicians in the future.

From a social justice framework, it is also critical to begin looking at this issue, as climate change is projected to have a much higher impact on vulnerable populations. Those populations may be less equipped to handle the effects of climate change, both materially and psychologically, and thus may be more in need of support from mental health agencies and professionals. Even if they have not yet encountered climate-change-related distress in the

therapeutic setting, it is critical that social workers and other mental health clinicians begin thinking seriously about how they will prepare for and provide support for those who are unequally affected by climate change.

## CHAPTER II

### LITERATURE REVIEW

In the following chapter I will provide an overview of the available literature related to the indirect psychological impacts of climate change. I will begin with an outline of the theoretical framework and premise upon which this study rests. Next, I will discuss how the fields of Psychology and Social Work have responded to the threat of climate change. Finally, I will provide an outline of some of the key literature that speaks to the indirect psychological impacts of climate change. Here I will look at both empirical and theoretical works and will, in closing, discuss what has not yet been answered in the literature available and what this study aims to explore further.

#### **Theoretical Framework**

At its core, this study is based on the premise that a person is deeply affected by, and cannot be fully understood as separate from, his or her environment. As such, it relies on the person-in-environment (PIE) model, which “has been linked to definitions of social work practice since the concept's earliest articulation in the first working definition of practice” and has since been deepened by the advancement of both general systems theory and the ecological theory and life model (Kondrat, 2008, p. 1). Central to the concept of person-in-environment is the notion that there is an interdependent exchange between the two; the person shapes their environment, and vice versa. Two early proponents of the PIE model were Germain and Gitterman (1980), who saw it as the basis for an ecological perspective on human development, which holds the view that “human needs and problems are generated by the transactions between people and their environments” (p. 1).

The terms “environment” and “ecology” are used broadly in the field of social work to include not only the natural world but the industrial world as well, and the social and institutional systems within it. However, a focus on the natural world by theorists, philosophers, social workers and psychologists in the 1970’s and 80’s gave way to the fields of deep ecology and ecopsychology (both of which share the “belief that consumerism and even industrialisation itself could be seen as a new kind of pathology, chiefly as evidence of a disturbed relation to nature” (Randall, 2012). While I will not be approaching this study from an ecopsychology perspective, I will engage with writing on ecopsychology as well as psychodynamic theory and social psychology.

Finally, this study is grounded in the overwhelming consensus of the scientific community on the existence and severity of climate change (Pachauri et al., 2014; Ceballos et al., 2015; Jamail, 2015a; Jamail, 2015b; Doré, 2015; Strauss, Kulp & Levermann, 2015; Hansen et al., 2015; Swim et al., 2009; Coyle & Van Susteren, 2012). According to Leiserowitz et al. (2014), the term “climate change” is sometimes mistakenly used interchangeably with “global warming” but what differentiates the two is that embedded in the notion of “climate change” is an understanding that global warming has been caused, at least in part, and exacerbated by human activity. Climate change, then, refers to anthropogenic (human-caused) warming of global temperatures which in turn have lead (and will continue to lead) to increased Co2 emissions, melting polar ice caps, rising sea levels, acidification of ocean waters and coral reefs, extreme weather patterns including prolonged heat waves, and animal and plant extinction (Pachauri, R.K. et al., 2014). Moreover, as reported by the Intergovernmental Panel on Climate Change, while significant changes in human behavior and reduction of greenhouse gases can *limit* climate change risks, “Surface temperature is projected to rise over the 21st century *under*

*all assessed emission scenarios* [emphasis added]” (Pachauri et al., 2014, p. 10). In other words, all available evidence points to the fact that, regardless of what action is taken to limit climate change, the earth will necessarily undergo significant changes as a result of anthropogenic global warming that have already occurred and these will impact not only the ecological systems in which we as humans operate, but our human systems as well (Pachauri et al., 2014). As was stated in a recent article about the psychological toll of climate change on those who study it,

Barring unthinkably radical change, we'll hit 2 degrees in thirty or forty years and that's been described as a catastrophe—melting ice, rising waters, drought, famine, and massive economic turmoil. And many scientists now think we're on track to 4 or 5 degrees—even Shell oil said that it anticipates a world 4 degrees hotter because it doesn't see ‘governments taking the steps now that are consistent with the 2 degrees C scenario.’ That would mean a world racked by economic and social and environmental collapse. (Richardson, 2015)

### **Climate change, psychology, and social work**

Reports by the American Psychological Association (APA) in 2009 and the National Wildlife Foundation (NWF) in 2012 discuss the serious psychological impacts that climate change will likely have on individuals and communities across the globe (Swim et al., 2009; Coyle & Van Susteren, 2012). The APA notes that these include direct psychological impacts (such as PTSD and depression following disaster), social and community impacts related to changes or events brought on by climate change (such as heat-related violence, displacement and relocation, intergroup conflicts, and increased economic disparities), and indirect psychological responses to climate change as an irreversible anthropogenic phenomenon such as numbness or apathy, guilt, and uncertainty and despair (Swim et al., 2009).



The NWF report suggests that feelings of powerlessness, fear, guilt, anger, and despair will likely increase for most people following climate-change-related disasters and point out that, as we learned from Hurricane Katrina, ecological disasters not only lead to increased rates of PTSD but also "high rates of depression, domestic violence and significantly higher rates of suicide and suicide attempts" (Coyle & Van Susteren, 2012, p. 9). Both reports also note that psychological distress following traumatic weather events will also be exacerbated by a number of factors, including proximity to disaster and vulnerability (Swim et al., 2009; Coyle & Van Susteren, 2012). Vulnerable populations include those with pre-existing mental health conditions, people with low socioeconomic status, children, and the elderly, as well as those whose jobs force them to confront the devastating realities of climate change, such as scientists, journalists, and those in the military (as wars across the globe are projected to increase as resources become scarce) (Coyle & Van Susteren, 2012).

Both the APA and NWF reports note that psychologists need to prepare for an increase in indirect psychological responses to climate change as an irreversible anthropogenic phenomenon (Swim et al., 2009; Coyle & Van Susteren, 2012). Despite its embrace of the person-in-environment perspective and its explicit commitment to social justice, the field of social work has been relatively silent on the subject of climate change; while the NASW code of ethics includes a commitment to society as a whole, there have been no publications from the field of social work to mirror the APA's 2009 report on psychology and climate change. While this study only looks at one of many important aspects of this issue, its aim is to begin bridging the gap between the field of social work and the growing need for research on the psychological impacts of climate change.

### **Apathy and denial in the face of climate change**

For purposes of this study, this literature review will focus primarily on research and writing on the indirect psychological impacts of climate change. Much of the literature on psychology and climate change considers four basic categories of emotional responses: denial, apathy, anxiety, and grief. While my study is primarily concerned with the latter two intrapsychic states, some of the research on denial and apathy will be briefly reviewed as these responses have important connections to climate-change-related distress.

Explorations into the psychology of climate change denial and apathy are not new. In a startlingly prescient essay written 43 years ago, Harold Searles (1972) noted that “the current state of ecological deterioration is such as to evoke in us largely unconscious anxieties of different varieties that are of a piece with those characteristics of various levels of an individual’s ego-developmental history” and went on to describe the role of ego defense in the face of climate change by engaging psychodynamic theory, connecting denial and apathy to Freud’s oedipal and phallic struggles and Klein’s depressive and paranoid states (p. 363). For example, as Searles (1972) argued, the general response to the “moralist” communications of ecologists (through which their own guilt is projected upon the masses) in turn inspires a rageful fear that we are being called upon to “relinquish our hard won genital primacy, symbolized by our proudly cherished but ecologically offensive automobile” which is “defiantly” refused in the form of apathy (p. 364).

Building off of the work of Harold Searles (1972) and others, Renee Lertzman (2012) has examined apathy in the face of climate change inaction through qualitative research in a Green Bay, WI community residing near a once bucolic river that is now listed as a superfund site by the EPA. Lertzman (2012) posits that inaction in the face of anthropogenic environmental loss comes not from a lack of concern or emotional reaction, but as a defense against the

overwhelming nature of those feelings. Based on her research, Lertzman (2012) found that what often is read as “apathy” is in fact a sign of a deep anxiety and an ambivalence about, or an unwillingness to face, the ethical dilemma of life in Western society: on some level those who experience the comforts and pleasures of the modern world - the automobile, for example - know that these luxuries come at the price of exploitation (environmental, but also human), but rely on enabling narratives of hard work and deservingness and technological achievement in order to suppress this knowledge and continue living the lie (Lertzman, 2012, p. 120). In her discussion, Lertzman (2012) uses psychoanalytic theories (including the works of Winnicott, Freud, Bollas, and Klein) to highlight the role of psychological defense that she sees in her research subjects and introduces the idea of Environmental Object Relations to explore this process. While the term “apathy” suggests an overall lack of concern stemming from a ‘gap’ between people’s knowledge about climate change and their behaviors, Lertzman (2012) suggests the term “paradox” to better describe the intense intrapsychic conflict and ambivalence experienced by her research subjects and by so many who claim (or are seen to claim) indifference in the face of environmental loss and climate change.

In many ways Lertzman’s “paradox” reflects the concept of “parallel narratives” in Rosemary Randall’s 2009 essay on loss and climate change (as well as Macy and Brown’s (2014) concept of ‘the Great Turning’ in which (in contrast to both “Business as Usual” and “the Great Unravelling”) there can be an “emergence of new and creative human responses that enable the transition from the Industrial Growth Society to a Life-Sustaining Society” (p. 5)). Much like Lertzman and Macy and Brown, Randall (2009) contends that inaction in the face of climate change may stem from an inability to reconcile two competing narratives that exist in the public sphere around climate change: alarming forecasts from scientists and activists about the

*effects* of climate change that conjure apocalyptic images of unimaginable destruction and loss on the one hand, and climate change *solutions* offered by governmental agencies and marketing campaigns that offer assurance by suggesting that small changes (rendered relatively painless by the marketing of green consumerism) and technological improvements will ward off the effects of climate change on the other. Randall (2009) suggests that the problem with these narratives is that they are incomprehensibly incompatible: not only does the latter narrative leave out any notion of loss while the former highlights enumerable losses, but the *scale* of the losses wrought by climate change in the former narrative appear to be so enormous that the “solutions” offered in the latter narrative are akin to bringing a spoon to a knife fight. There is, she seems to suggest, a middle ground here between business-as-usual and apocalyptic nightmare but it would require us to change in ways that go beyond installing solar panels or changing lightbulbs – ways that would necessitate certain kinds of loss. However, she contends, our deep-seated

fear of loss leads to it being split off and projected into the future. The present continues to feel safe but at the expense of the future becoming terrifying. On the one hand, nightmare, on the other false comfort. (2009, p. 119)

In contrast to what she sees as small-step, green-consumer, low-carbon solutions, Randall (2009) suggests that what is needed is a solution narrative that engages realistically and empathically with the losses that we face, as “they are likely to be experienced as attacks on the aspects of life that people hold dear: family and attachment, aspiration and progress, individuality, identity, and the self” (Randall, 2009, p. 120). Essentially, she argues, we need to recognize the psychological significance of what we stand to lose so that we can mourn those losses fully and move forward. For illustration, Randall notes,

Take for example a young woman whose car is her cocoon. She has chosen it for its color and style. She fills it with personal comforts—her CDs, a favorite rug, a mascot, water-bottle, and tissues within easy reach, radio tuned to her favorite station. Snug inside, she feels safe. At the start of the day, it helps her make the transition from sleepy, child-like dependence to independent, responsible, working woman. At the end of the day, its privacy and containment comfort her from the bruises of working life. Its outward gleam and shine speak of her success. Its inner warmth and comfort acknowledge her fragility. It both protects and expresses her identity. The suggestion that she might take the bus to work or lift-share with colleagues will not be appealing. Aspiration, lifestyle, security, and identity are all instantly under threat. We should not be surprised at a negative response to the suggestion. (Randall, 2011, p. 120)

Randall (2009) looks to psychoanalytic theories of loss (including the work of Kubler-Ross, Bowlby & Parker, and Worden) as well as different types of loss (chosen loss, transitional loss, and anticipatory loss) and how they might be usefully explored through psychodynamic theory. Like many who study the psychology of apathy and denial, Randall (2009) is concerned on a very practical level with how our understanding of human psychology can be harnessed in order to move people towards engagement and action. For Randall (2009), one answer lies in a massive project she has undertaken in the UK to engage the public in a series of locally-based “Carbon Conversations” groups, in which “people explore their personal impact on climate change and they are deliberately designed to minimise guilt and anxiety and encourage the exploration of the dilemmas people find themselves in as they try to reduce their carbon emissions” (Manchester Climate Monthly, n.d.). In essence, Randall’s aim is not to induce anxiety or sadness where none exists, but to provide a safe space in which individuals can allow

themselves to let down their defenses, experience their sadness or anxiety as a normal response to change, and move through it in order to take action.

Randall's "Carbon Conversations" project is in fact one of several environmentally-focused process group initiatives discussed in both Adams' (2014) and Per Espen Stoknes' (2015) works on the subject of psychological defense and climate change. Adams (2014) comes to the subject as a social psychologist, but nods to the work of Randall, Lertzman and others who explore the psychological barriers and defense mechanisms that impede behavioral change in response to climate change. Adams (2014) focuses on the "apparent social character of these mechanisms" and he explores the way that people collectively collude to maintain silence around climate change in response to the uncomfortable emotions generated by the topic and how the process of collectively constructing and reinforcing narratives works to reassure and sanction ongoing inaction (p. 1). Adams (2014) points to Rosemary Randall's (2009) work around "parallel narratives" to argue that these competing narratives promote silence and inaction not only on an intrapsychic level, but on a social level as well. Adams (2014) suggests that in order to spur collective action, is important that we get a better understanding of how everyday relations fuel collective silence, but also notes that we "need to be alert to the fact that facing loss is anxiety-inducing, and must be approached with the support of others; support that includes the struggle to develop meaningful alternative narratives to identify with collectively" (p. 3). He points to the success of a number of emerging projects around this work including Randall's Carbon Conversations as well as the RSA's "seven dimensions of climate change project", the "Dark Mountain Project", and "Mediating Change" (Adams, 2014).

Like Randall and Adams, Stoknes (2015) places significant emphasis not only on the importance of understanding and working through the emotional sources of inaction in order to

spark change, but also on the power of narrative in the shaping of emotions around climate change (although the “go-stories” that Stoknes (2015) urges his readers to tell seem eerily close to the “solution narratives” that Randall critiques: he cautions his readers to “avoid apocalypse narratives” (p. 149) altogether and instead “describe an ecologically richer, rewilded, better world that you and I would look forward to living in” (p. 134)). However, despite this apparent aversion to the concept of loss, chapters like “Stand up for your depression”, “It’s hopeless and I’ll give it my all”, and his discussion of “the five D’s (Distance, Doom, Dissonance, Denial, and iDentity) do make it clear that, like Lertzman, Randall, and Adams, Stoknes (2015) is ultimately concerned with engaging the human psyche in overcoming defense. His position, essentially, is that there is no way to meaningfully engage with climate change without engaging with complex psychological processes. As he notes in his closing paragraph, “The most fundamental obstacles to averting dangerous climate disruption are not mainly physical or technological or even institutional; they have to do with how we align our thinking and doing with our behavior” (Stoknes, 2015, p. 227).

With few exceptions, the literature around the psychology of climate change denial and apathy indicates that in the end, there is no way to face the enormity of climate change head on without experiencing some level of distress. As one climate scientist who went back for a psychology degree in order to study these impacts is paraphrased as saying,

consumption and growth have become so central to our sense of personal identity and the fear of economic loss creates such numbing anxiety, we literally cannot imagine making the necessary changes. Worse, accepting the facts threatens us with a loss of faith in the fundamental order of the universe. (Richardson, 2015)

This does not mean that every person who denies climate change or does not take action to reduce their carbon footprint is secretly experiencing mental anguish – the fact is that many Americans do not actually comprehend the science of climate change (Roser-Renouf et al., 2014). However, as the concept of person-in-environment helps us see, human psychology cannot be understood as existing separately from the environment we exist in; significant losses, threats to, and changes in our environment will affect us – unless of course we use psychological defenses, such as splitting, denial, projection, undoing, and so on, to keep ourselves disconnected from our emotional experiences. This also does not mean that once the emotional impact of climate change is experienced we must accept it as a permanent fact: US President Barak Obama sums this up perfectly when he states, “There are some amazing, beautiful things in this world that aren't coming back. And that should give us all pause. But I don't wallow in sadness, because we've got too much work to do” (Goodell, 2015).

For Lertzman, Randall, and others, the importance of unearthing distress masked by denial or apathy is that, once revealed, it can be harnessed in order to redirect the public towards climate change action. Indeed, the experience of distress around climate change, for Lertzman and her ilk, is in some ways the *goal* of the psychologist (or social worker): essentially, if we can work to lower the defenses of those who are ‘apathetic’ or in denial and get them to a place where they can face their underlying distress, we can get them to move through grief and take action. These works (with the exception of Lertzman’s qualitative research) primarily focus on the public as whole instead of the individual, but all seem to suggest that on both an individual and a collective level, the apathy and denial around climate change that we see *en masse* in many wealthy western nations like the US are a reflection of deeply held defense mechanisms that



protect us, both as individuals and as collectives, from having to face the changes and losses that will necessarily occur as a result of climate change.

A critic of such an argument might suggest that apathy and denial are not necessarily a sign of distress and could simply be taken at face-value; that perhaps those who do not seem to care or who angrily resist mitigation efforts see climate change for what it is and simply do not care. However, as is explored in a number of studies below, and as is seen in the Lertzman's qualitative study discussed above, what most of the research tells us is that when people learn more about climate change and its effects, they generally do experience increased levels of concern and distress, though, importantly, these feelings are not necessarily pathological and in fact are often attended by feelings of efficacy and motivation to act (Higginbotham, Connor, Albrecht, Freeman & Agho, 2006; Cunsolo-Wilcox et al., 2013; Searle and Gow, 2009; Searle and Gow, 2010; Beattie, Sale, & McGuire, 2011; Hornsey, Fielding, McStay, Reser, Bradley, & Greenaway, 2015; Milfont, 2012).

### **Anxiety and grief in the face of climate change**

In 2005 the environmental philosopher Glenn Albrecht coined the term "solastalgia" to describe

the pain experienced when there is recognition that the place where one resides and that one loves is under immediate assault (physical desolation) ... the erosion of the sense of belonging (identity) to a particular place and a feeling of distress (psychological desolation) about its transformation. (p. 49)

Albrecht introduced the concept of "solastalgia" as an entirely new and separate disorder (MacSuibhne (2009) took issue with this, seeing it as value-laden and more rhetorically than clinically useful), and while it seems unlikely that solastalgia will make its way into the next

DSM, the term continues to be used in the literature, giving weight to the emotional stakes of ecological degradation.

The experience of solastalgia was successfully measured and validated by Higginbotham et al. (2006) in a subscale of a survey instrument called the Environmental Distress Scale (EDS) that was developed in order to determine the bio-psycho-social costs of environmental destruction. The authors noted that although the EDS had been created to address specific industries and practices, “it can be adapted as a general tool to appraise the distress arising from people's lived experience of the desolation of their home and environment” (Higginbotham et al., 2006, p. 1). However, while the EDS has been used in a number of studies since, all of those have focused on communities under direct environmental stress, including those in the aftermath of a natural disaster. This is likely because many of the questions in the EDS relate directly to local environments rather than a general sense of ‘the environment’ writ large or even the local environment moderated by temporal distance (i.e., the future).

Indeed, distance – whether geographic, temporal, or emotional – does appear to be a significant factor in determining how, when and why people experience psychological distress over climate change. On a very basic level, this makes sense – the closer you are to destruction, the bigger the impact; hence the distinction made by the APA, NWF and others between direct and indirect psychological impacts. But these studies also demonstrate the nuances of distance in relation to climate change and emotion. For example, one finding in the Higginbotham et al. (2006) study was that “Environmental distress is related to having a long family heritage in the area and occupying a heritage family home” (p. 251). In another study by Cunsolo-Wilcox et al. (2013) that sought to examine the impacts of climate change on Inuit health and well-being, reports of increased levels of suicidal ideation, addiction, family stress, and magnification of

already existing trauma symptoms were linked not only to the high visibility of climate change (as the effects of climate change are particularly acute in polar regions), but also to the deep psychological and cultural ties between Inuit identity and the land. Distance, then, refers not only to geography, but also to familial, cultural and psychic ties.

In addition to emotional and cultural proximity or distance to lands effected by climate change, informational distance and awareness (in a sense, how near or far one puts oneself to information about climate change) also plays a significant role in mediating the emotional impacts of climate change. In essence, it appears, the closer one gets to “the truth” of climate change, the higher the psychological impact. Searle and Gow (2010) note that “individuals experience exposure to ecological events through media images of violent weather, special reports on the latest natural disaster being linked to climate change” and, pointing to studies on PTSD related to media following 9/11, note that this kind of exposure can cause significant distress for some (p. 35). Renowned ecopsychologist Joanna Macy also connects emotional distress around climate change with increased access to information:

There have been other moments in our journey of humanity when everything seemed at stake. I think the difference now is that we have the technology to, for the first time, view the whole planet. We can see the effects of desertification, we can count and figure what’s happening in the disappearance of the species. Because of what we are able to know, thanks to our technology, we’re in the awkward and horrifying position of being able to watch the falling away of life, the great unravelling. (Over Grow the System, 2014)

But perhaps the clearest example of informational distance around climate change and its relationship to distress can be seen in those whose work puts them in close contact with climate

change knowledge: scientists working on climate change. Moser (forthcoming), for example, describes a coral researcher's experience facing climate change, noting that "when the truth about a future without corals finally sank in, she had to run to the bathroom and vomit, it was so devastating. It took her years to accept it" (p. 7). In fact, literature on the subject suggests that scientists have recently have begun "coming out of the closet" (Caldwell, 2010) about their emotional reactions to climate change (one particularly accessible example of this can be found on the website 'isthishowyoufeel.com' which collects and reprints handwritten notes by climate scientists about their feelings on climate change).

Richardson's 2015 article on the subject follows a number of prominent scientists attempting to grapple with and overcome feelings of despair in the face of what they as experts know about the impact that climate change is having and will continue to have on the planet. One of them, who "struggles with doubt... admits that some of his colleagues are very depressed, convinced there's no way the international community will rise to the challenge" (Richardson, 2015).

Caldwell (2010) also discusses the emotional toll on scientists (as well as others, like activists, whose work necessitates regular engagement with climate change realities) and "comes out" as experiencing what she calls "Climate Trauma" as a result of her work. Lise Van Susteren of the NWF, as Thomas notes, has begun calling this particular emotional experience "'pre-traumatic stress disorder,' a term she coined to describe the mental anguish that results from preparing for the worst, before it actually happens" (2014). Thomas suggests that "it's time for those deeply involved in climate science to come forward about the emotional struggle, or at the very least, for those in mental health research and support to start exploring climate change psychology with more fervor" (2014). Below, I will discuss the research that has already been

done in this area and how I hope to add to this body of knowledge with the present research study.

### **Empirical research on climate-change-related distress**

The vast majority of the empirical research on climate-change-related distress focuses on cognitive processing and risk assessment, and some of this research considers emotional processing as a key factor. The aim of many of these studies is to understand how psychological processes can be best understood and harnessed in order to mobilize the general public. While a full review of the literature related to cognition and risk assessment in the face of climate change is beyond the scope of this project, a few key studies that focus on emotional distress and climate change will be reviewed below.

Some researchers have used media to provide participants emotional and/or educational experiences in order to examine emotional responses to climate change. Lowe et al. (2006) measured concern, understanding, motivation and responsibility in relation to climate change by asking participants to complete a survey before and after watching “The day after tomorrow,” a fictional portrayal of environmental catastrophe caused by climate change. Lowe et al.’s (2006) study was particularly interested in how media representations of climate change affected participants’ viewpoints, and the study demonstrated that after watching a dramatization of the effects of climate change participants were more concerned about climate change, felt more responsibility towards stopping it and felt more motivated to do so, but also had a difficult time differentiating between climate change facts and fiction, felt *less* convinced of the likelihood of extreme weather patterns as a result of climate change than they had been, and did not know what could be done about it (though they were motivated to do something if it could be done).

Like Lowe et al. (2006), Beattie, Sale, and McGuire (2011) also measured emotion, awareness, and efficacy in relation to climate change and asked participants to complete a survey before and after watching a film, but unlike Lowe et al. (2006) they focused on an educational film rather than a drama, as they noted that a 2008 study by Kellstedt et al. found that there was actually a negative correlation between information and concern. In light of this, Beattie, Sale, and McGuire (2011) questioned whether self-reports of awareness and efficacy may be skewed by *lack* of concern (in other words, when asked whether they are aware of the threat of climate change, someone who is not well informed and who feels little concern about climate change may self-report as being more knowledgeable than they are and may express feelings of self-efficacy that are based on a minimal understanding of the threat itself). To test this, Beattie, Sale, and McGuire (2011) asked participants to complete a mood questionnaire and a climate change attitudes questionnaire before and after watching clips that were both informative and emotional from the documentary film “An Inconvenient Truth”. They found that after watching the clips, participants were significantly less calm and happy, but “felt more motivated to do something about climate change, more able to do something, and less likely to think that they had no control over climate change” (Beattie, Sale, & McGuire, 2011, p. 123).

How long that sense of motivation lasts, however, is an entirely different question, and is one of the things that Searle and Gow (2010) explore in their research on the relationship between risk perception and motivation level in the face of climate change among university students. Like Beattie, Sale, & McGuire (2011) Searle and Gow (2010) discuss the extent to which media influences understandings of climate change risk. They also consider a number of other aspects of risk perception, including Slovic’s (1987) notion that risk perception also involves the appraisal of two types of risk: dread risk (the extent to which aspects of an object or

event are uncontrollable and catastrophic) and unknown risk (the extent to which aspects of an object or event are unknowable or unobservable); according to Searle and Gow (2010), climate change can be considered to have “both high levels of dread risk and unknown risk, because it can be gauged as uncontrollable, leading to catastrophic ends, and also because the specific mechanisms are largely unobservable and not fully understood” (pp. 36-36). Searle and Gow (2010) also provide an interesting discussion of the contributions of Beck (1992), Ungar (2001) and Welch (2006) to the notion that as a result of modernization, industrialized nations can now be described as “risk societies” in which growth and demand have led to technological advances that push nuclear, environmental, biological, chemical and medical issues to the limit, so that a new set of social anxieties accompany the modernity and affluence achieved.

Although the actual results presented in Searle and Gow’s (2010) study are fairly broad, and not presented in the most organized fashion, the quantitative data and qualitative responses do provide an interesting snapshot of the complexity of competing emotions among individuals who express concern about climate change: on the one hand, 75.6% of respondents did not believe that the ecological crisis is exaggerated and 83.3% believe that nature can no longer cope with the effects of industrialization, but on the other hand the interviews demonstrated that “while people can feel bad, ashamed, and passionate about protecting the environment, in most instances that activation lasts only a few minutes or at the most a few hours or a few days” (p. 46).

In their conclusion, Searle and Gow (2010) suggest that their findings underscore the fact that in order to change people’s behaviors, it will be critical to “make climate change scenarios as applied as possible to individuals in their local circumstances and to bring the discussions back across the time line to the decades nearer those who are alive on this threatened planet

now” (p. 48). Without disputing this suggestion, I would posit that Searle and Gow’s (2010) findings could also point to the same kinds of defense mechanisms explored by Lertzman (2009), Randall (2011) and others studying the psychology behind apathy and denial around climate change discussed above. Even for those who are willing or able to experience in the short-term the emotions brought up by contemplating the full scope of anthropogenic global warming and what it could mean for the future of our (and other) species, it may simply be that there is a limit to how long they can tolerate those emotions before they become overwhelmed and their ego defenses kick in.

Nevertheless, their recommendation reflects the findings of Marx et al.’s (2007) study on experiential and analytic processing of uncertain climate information. In their review of the literature on experiential versus analytic processes in the face of probability and risk, Marx et al. (2007) found that on the whole people have a much harder time reacting appropriately to information demonstrating potential risk that has been experienced analytically (for example, through statistics), than information that is processed experientially (either from their own experiences, memories or vicariously through others). Their findings echo discussions in the 2009 report on analytic and experiential processing (which cite similar findings by Damasio (1994), Loewenstein et al. (2001), and Weber (2006). While experts on climate policy, communications, and social psychology argue over why the public remains unmoved by various campaigns, results from Marx et al.’s (2007) study, as well as those discussed in the APA report, suggest that perhaps the problem is not how *information* is transmitted, but how *emotional experience* can be harnessed to help individuals process that information: "The role of analytic processes in the understanding of (climate) uncertainty and in decisions involving such



information, however, has often been overestimated and the role of experiential processes has been ignored." (p. 48).

Unfortunately, this phenomenon may be related to how slowly America and other countries have responded to climate scientists' calls to action. As President Obama noted in an interview on climate change, "You wish that the political system could process an issue like this just based on obscure data and science, but, unfortunately, our system doesn't process things that way. People have to see it and feel it and breathe it. And that makes things a little scarier, because it indicates that we're already losing a lot of time (Goodell, 2015).

However, as Marx et al. (2007) indicate, one does not need to personally experience something in real time in order to experientially process information – vicarious experience can also be processed experientially, which lends support for the decision of Caldwell (2010) and others doing environmental work to "come out of the closet" emotionally, and may also provide a scientific basis for why group-based communication (such as Rosemary Randall's Climate Conversations) are so successful at mobilizing people towards change.

Anxiety and distress are unpleasant feelings to experience, but they are not in and of themselves "bad" per se; rather, feelings of anxiety or distress in the face of an actual risk or threat are appropriate and useful responses that prompt us to take protective action. As Derrick Jensen notes in his article on hope in the face of climate change,

Many people are afraid to feel despair. They fear that if they allow themselves to perceive how desperate our situation really is, they must then be perpetually miserable. They forget that it is possible to feel many things at once. They also forget that despair is an entirely appropriate response to a desperate situation. Many people probably also fear

that if they allow themselves to perceive how desperate things are, they may be forced to do something about it. (2015, July)

In a sense, President Obama's comments on climate change (echoing the works of Lertzman, Randall and others), indicate that there may be reason to hope for an *increase* in distress in the general population in order to prompt collective action. However, anxiety can also become pathological in nature and a few studies have looked more closely at climate change anxiety in order to understand whether chronic worry is pathological and who in particular might be more vulnerable to this type of emotional response.

Verplanken and Roy (2013) used an online survey that looked at self-reported rates of ecological worrying alongside a Habit Index of Negative Thinking, an Environmental Attitude Inventory, a checklist of pro-environmental behaviors, the Penn State Worry Questionnaire, and the Big Five Inventory of personality traits to determine if habitual ecological worry is necessarily pathological and unconstructive or if it is perhaps constructive in nature. Verplanken and Roy (2013) hypothesized that ecological worry can be differentiated from pathological worry because (a) it can "generate functional cognitive operations and behaviors" (p. 2), (b) it is externally focused rather than internally focused, (c) it can have beneficial outcomes, either in terms of action and engagement, or increased feelings of self-efficacy, and (d) it is linked to altruistic values and is chronic in nature not because it is driven by habit but by the chronicity of the problem itself. Based on their results, the authors conclude that "those who habitually worry about the ecology are not only lacking in any psychopathology, but demonstrate a constructive and adaptive response to a serious problem" (Verplanken & Roy, 2013, p. 1).

Noting the correlation between awareness of threat and feelings of efficacy in the face of climate change, Hornsey et al. (2015) did a two-part quantitative study to examine whether this

phenomenon was related to having a ‘green’ identity or whether feelings of efficacy and control arose out of a need to manage and defend emotional responses to that threat. Although the study seems to raise more questions than it answers, the results confirm the correlation between threat and efficacy, as well as the correlation between threat, efficacy, and having a ‘green identity’ (though they find that ‘green identity’ did not appear to flow *from* awareness of threat). The authors determine that the notion of efficacy-as-defense holds: “people's efficacy beliefs are galvanized by a need to manage their responses to the threat associated with climate change” (Hornsey et al., 2015, p. 63). Milfont (2012) also studied the relationship between knowledge, efficacy and concern around climate change by studying national data from New Zealand over a one-year period and found that knowledge about climate change positively affected concern about the risks of climate change, which in turn lead to an increase in perceived efficacy and responsibility.

Like Hornsey et al., (2015), Veldman (2012) also looks at the relationships between environmentalism and concern, but her study actually focuses on an extreme level of concern, exploring the utility of apocalyptic narratives for those active in environmental movements. Remarkably, Veldman (2012) too suggests that there may be a potential benefit to this kind of extreme future worry, as “the notion of imminent apocalypse provides a moral to the environmental story—that humans must fundamentally alter their relationship with the natural world—and in so doing furnishes a point of view from which people can determine what constitutes environmentally ethical behavior” (p. 3). Veldman’s (2012) qualitative study suggests that, in addition to facilitating ethical considerations and pro-environmental behavioral changes, narratives of environmental apocalypse encourage a “social view of the self” as it provides a sense of a shared destiny and a collective goal.

However, while Veldman's (2012) study may help explain the connection between pro-environmental identity, concern, and self-efficacy found by Hornsey et al. (2015) and Milfont (2012), these studies do not address whether or how individuals learning about climate change must (as Randall, Lertzman, and others suggest) first grapple with feelings of distress (such as anxiety or grief) before they arrive at a sense of self- and collective efficacy. Nor do these studies provide much insight into the question of what risk factors and traits make some more vulnerable than others to climate-change-related distress. As noted above, while distress and anxiety do serve an important psychological function, that does not mean that they necessarily 'feel good' nor does it mean that their benefits always outweigh the costs. For some, anxiety around climate change produces immense suffering (in just one of many examples, a Columbia University Professor of Psychiatry is quoted in an article about climate change distress as saying, "One of my patients compulsively reads about climate change, stays up late with intrusive thoughts of climate events that could hurt him or his loved ones, enacting obsessive-compulsive rituals, such as making to-do lists to try to plan for this future... Another sabotages one relationship after another by refusing his lovers children because he could not bear to bring children into a life of such suffering" (Cimons, 2015).

Indeed, while the studies described above seem to point to the idea that learning about and talking about climate change will increase feelings of efficacy, another study by Searle and Gow (2009) suggests that there *is* a relationship between increased public concern about climate change and symptoms of depression, anxiety, and stress. Their study attempts to explore why one person might experience efficacious concern while another might experience severe anxiety. Using quantitative research with 300 Australian adult subjects, Searle and Gow (2009) examine whether distress is correlated with certain vulnerability factors or personality traits, including

age, gender, environmental beliefs, future anxiety, intolerance of uncertainty, and religiosity. They found that females and younger individuals (below the age of 35) were more likely to experience distress around climate change, and found that that the strongest predictors of climate change distress were pro-environmental beliefs and high levels of future anxiety (Searle & Gow, 2009).

Prior to implementation of their study, Searle and Gow (2009) had predicted the gender differences that arose in their findings, noting that previous research by Sunblad et al. (2007) found that while “men and women did not differ in their predictions of the probability of serious negative consequences occurring as a result of climate change, women were more worried about the consequences” (p. 42). The APA’s 2009 report on the psychological impacts of climate change also discussed gender difference, though they cited research that, unlike Sunblad et al. (2007) found that differences do exist in risk perception between men and women. Searle and Gow (2009) had also predicted age as a significant variable in climate-related anxiety prior to implementing their study, as research on fear and anxiety over the lifecycle demonstrated that the number and intensity of various fears peak in high-school age and college-aged groups (p. 364). However, they also point out that younger individuals are more likely to have been educated about climate change in school, a point which is explored in several works on climate-related distress and environmental education.

### **Theoretical research on climate-change-related distress**

As noted above, Searle and Gow’s (2009) study found that younger (under the age of 35) individuals were more likely to experience climate-change-related distress, and these findings echo the Kool and Kelsey’s (2005) discussion of the emotional impact of general environmental education on children being raised in a world that is experiencing environmental crisis. Kool and

Kelsey (2005) note that the message that is often sent to children is one that results in feelings of loss and powerlessness and they point out that the risk of instilling in children a sense of learned helplessness in the face of crisis is that it can lead to learned hopelessness. Kool and Kelsey (2005) also explore how environmental education overlaps with Attachment Theory and with Terror Management Theory and suggest that a more thoughtful and emotionally reparative environmental education would help children recognize and work through loss (i.e., endangerment and extinction), release emotions of grief, develop new skills, and reinvest emotional energy in the present. Similarly, Kelsey and Armstrong (2012) explore the literature available on environmental education and make suggestions for engaging kids in ways that recognize the enormity of climate change and their emotions around it while also instilling hope and moving beyond narratives of tragedy<sup>1</sup>.

Yet while Kool and Kelsey (2005) and Kelsey and Armstrong (2012), focus on youth in the present day, Rust (2008) sees the effect of environmental education already in one of her adult clients responding to a question about the future: “she replied ‘We’re completely fucked.’ She talked about our global crisis at length and she spontaneously made the link to her drinking, saying ‘We may as well go down having a good time’” (p. 163). Rust (2008) considers this response and asks her readers:

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<sup>1</sup> In fact, this same topic is the focal point of a forthcoming documentary co-produced by Beth Haase, M.D., a psychiatrist doing work around the psychological impacts of climate change with whom I spoke after she came across my research survey invitation online. The film, which is currently in production, explores the question “What do we do with our children today to prepare them psychologically for tomorrow?”

What does it do to a whole generation of thirty somethings who are growing up with this secret view of their future? No wonder we have an epidemic of binge drinkers. Isn't it mind-blowing to imagine a collective who are secretly thinking this but not really sharing it, apart from just in passing – 'Oh – I think we're doomed'? It's very reminiscent of: 'Don't talk about the war.' We cannot deal with death in our culture. (p. 163)

What is not clear, however, is whether Rust is correct in suggesting that an entire generation actually believes this. While my study is looking specifically at the therapeutic setting and not the population in general, my hope is that it will at least provide some information about how often comments like the one made by Rust's client are made in the therapeutic setting, as there is no data currently available on this subject.

However, Rust's (2008) take on her client's comments about climate change does underscore what Hamilton and Kasser (2009) consider to be the "unpleasant emotions associated with 'waking up' to the dangers of a warming globe... fear, anxiety, guilt, anger, anguish, sadness, depression and helplessness" (p. 1). Hamilton and Kasser (2009) note that while many rely on maladaptive coping strategies and denial (which they liken to early stages of grief and loss), it is critical that they move towards more adaptive strategies that "are akin to later phases of mourning and involve acceptance of, rather than resistance to, some of the pain and distress that follows recognition of the facts of climate science and their meaning" (p. 6). However, they also point out that it is important in the earlier stages of grief to express and move through feelings rather than dwell on them and they suggest that emotion-focused grief work should be accompanied by the development of mindfulness practices and, eventually, action (Hamilton & Kasser, 2009).

However, as we see in Kristine Kevorkian's (2004) heuristic research, one of the challenges of environmental grief is that "People reacting to the loss of their environment and to the ecosystems around them experience disenfranchised grief because society does not openly acknowledge these losses in that "the relationship is not recognized" (p 24). Kevorkian (2004) cites environmental scholar and activist Joanna Macy (1991) whose early work in ecopsychology and deep ecology included scholarship on "despair work," but notes that while despair work does not require an acceptance of what is being lost (as the loss has not yet occurred), environmental grief work deals with the acknowledgment of environmental loss. Schiffman (2013) and von Ranson (2012) also discuss environmental grief, using Kubler-Ross' stages of grief as a model.

Renee Lertzman's (2015) discussion of environmental loss and mourning and melancholia provides an interesting perspective on this disagreement. In response to Lertzman's qualitative interviews with residents of an ecologically troubled area near Green Bay, WI, she notes, "It was this sense of subjective distress and sorrow that I was most struck by: a quality of loss without clear origin or cause. The key difference between the world of mourning and melancholia is the (often) unclear nature of the original loss" (2015, p. 77). Lertzman (2015) points out that her participants' expressions of sorrow around their environmental loss came up most frequently in dreamlike references to childhood in which childhood and nature are almost inseparable. The implication here is that experiencing an emotional relationship with one's environment is something that one outgrows by adulthood. Returning to Kevorkian's environmental grief with that in mind, perhaps a better way to describe the disenfranchisement of environmental loss is that 'the relationship is *no longer* recognized' by society but also by one's self (and, taking it even further, perhaps what is being mourned is not only the loss of an



environment with which one has had a relationship, but also the loss of one's younger self as well).

Like Lertzman (2015) and Kevorkian (2004), Kidner (2007) also discusses the challenge of addressing feelings of environmental grief in an industrialized society built upon an ever-widening disconnect between the psyche and the natural world, but he takes this notion one step further by suggesting that increased rates of depression, anxiety, addiction and so on are treated in our industrialized society as individual psychological irregularities when in fact they may be more collective and symptomatic of our alienation from and destruction of the environment. In some ways Kidner's (2007) work recalls the notion of a "risk society" in which growth and affluence is attenuated by a "wide spread worry and uneasiness that, at the extreme, contributes to a perception of a catastrophic society that is doomed by impending disaster" (Searle & Gow, 2010, p. 33) but Kidner (2007) takes this argument further, suggesting that there exists not only a general societal dis-ease as a result of modernization, but also that individual responses to this general social dis-ease are (precisely because of that disconnect) being mistakenly and attributed to psychological *disease* (e.g., depression) when in fact it is society that is 'ill'. Despite what could be a vague and unconvincing argument (within the field of psychology, that is; as a general philosophical notion his argument would likely have much more traction), Kidner's (2007) work is surprisingly nuanced and compelling, but even if he is right, he offers little in the way of a solution. He notes, for example, that "one of the tasks of the critical psychologist is to drag this twilight realm back into consciousness so that we can reclaim our full identities as beings who are simultaneously social and natural" but he leaves his reader to guess at what that task would actually look like in the therapeutic setting (p. 127).

### **Climate change and psychotherapy**

As we have seen, whether expressed as grief, anxiety, apathy, or denial, the psychological ramifications of climate change are as deep as they are wide. We know from the person-in-environment perspective that we cannot fully comprehend the whole of a person without considering their relationship to their environment and we know that our (global) environment is facing irreversible and in many ways catastrophic change, yet little has been written about how emotions around climate change are expressed or dealt with in the context of psychotherapy. Most of what has been written about climate change and psychotherapy has come from the field of ecopsychology and from practitioners of ecotherapy and wilderness therapy. While these specialty areas may themselves be well equipped to help clients cope with climate-related emotions, the majority of mental health clinicians in the US do not specialize or get training in ecopsychology and ecotherapy, nor are they likely to have received any training specifically oriented to handling the psychological impacts of climate change in a clinical setting.

How then do therapists assist clients who bring their emotional responses to climate change into the therapy session? If a client expresses habitual anxiety around climate change, how does his or her therapist determine, as the APA report suggests, whether the fear is healthy or pathological? Is their distress considered to be clinically relevant? Is the topic taken at face value or is their distress analyzed for latent content? And if it is analyzed, how? Is their anxiety read through a Kleinian lens, as Searles (1972) and others have suggested, with the therapist helping the client to move from a paranoid to a schizoid position? Are they frozen in melancholia, as we see in the subjects of Lertzman's (2015) study, or have they regressed, as Mauss-Hanke (2013) suggests, to a childhood state of annihilation anxiety at the horrifying realization that their mother(earth) may turn away from them in retaliation of her child's abuse? Or should therapists *resist* the urge to analyze or interpret "experiences of nature [that] can be

related to only on their own experiential turns” as Bernstein (2005) did when his client “Allen” spoke about his “Great Grief” (p. 73)?

Moreover, to what extent should a therapist work to uncover climate-change-related distress in clients who do *not* explicitly complain of distress but hint at it or defend against it. It might be possible (though not necessarily easy) to ‘drag the twilight realm back into consciousness’ (as Kidner (2007) suggested) if your client is like the young man who joked to Randall (2012) that he would kill himself if he found out climate change existed and then ran away when his ‘joke’ fell flat under the weight of his emotions, but as Kidner (2007) himself notes,

Staring reality, and not least ecological reality, in the face can indeed be unbearable, and it is therefore unsurprising that many of us engage in mental gymnastics in order to avert the full psychological impact of the destruction of the natural world. (p. 140)

Noting the similarities between climate change today and nuclear weapons in the 1980’s, Rust (2007) quotes Kleinian analyst Hannah Segal (1988) when she writes,

On the one hand...we must not collude with the patient’s denial of any external situation that we may guess at from the material and that the patient does not bring out in the open. On the other hand, we must also be very wary of imposing on the patient our own preoccupations and convictions... If we do our job properly in dealing with the patient’s basic defences, the relevant material will appear, because, in fact, below the surface, patients are anxious, even terrified. (p. 56)

Indeed, as exemplified by Rust’s binge-drinking client, it may not take much at all to scratch the surface. Bodnar (2008) sees responses like that of Rust’s client as typical of the “wasteful behavioral enactments” that she sees in a number of her clients who come to her with a

variety of problems and needs and personality issues that are individually unique but collectively emblematic of an “unbalanced society”, and in fact Rust’s client’s response is remarkably similar to those of a 14 year old client of Bodnar’s (2008) who reports that he lays awake at night worrying about the environment “and then all I want to do is masturbate because it just gets to be about, well, why not just have an orgasm if the whole world is falling apart” (p. 488). Through an analysis of 3 case studies, Bodnar (2009) argues that environmental loss in a disconnected world leads to a symptom profile of “obliterative substance abuse, nihilistic narcissism, dissociative materialism” (p. 504) (a notion also put forward by Kidner, 2007) and suggests that,

Psychoanalysis’ main work has always been treating the individual and freeing him or her from neurotic entrapment. Our work now may be also implicitly charged with treating the first fevers of a societal disease and freeing our culture from the neurotic entrapment of one-sided dependence on technology and unsustainable life practices. (pp. 488-89)

If Bodnar is right that therapists today are charged with “treating these first fevers”, the question remains, are clinicians taking up this charge? And if they are, how? Hasbach (2015), notes that “Issues of climate change are rarely the ‘presenting problem’ when a client comes to the office... Yet rates of depression are on the rise, along with an increase in anxiety and suicide,” and suggests that (in addition to adopting adapting ecopsychological techniques during the therapeutic work) intake interviews should be expanded to include nature-oriented questions so that

these discussions make the clients’ experiences of the natural world and their concerns related to climate change (stories in the news, weather events, concerns about rising sea levels, species extinction, etc.) relevant to therapy and lay the groundwork for future discussions and nature-based assignments. (p. 207)

However, large-scale adoption of modifications like these would not occur unless a significant number of practitioners consider the topic to be significant enough to warrant change, and thus far, little to no research exists on the opinion of therapists relative to distress around climate change.

### **Summary**

The goal of this study is to explore these questions to determine how often climate-change-related distress comes up in the therapeutic setting and how it is being handled by mental health clinicians in general. Using a mixed methods online survey, I will collect quantitative data and qualitative responses from clinicians around the US in order to get a fuller picture of the indirect psychological impacts of climate change and how mental health clinicians are responding to climate-change-related distress in the therapeutic setting.

## **CHAPTER III**

### **METHODOLOGY**

Climate change is expected to cause increasing psychological distress for many Americans in the years to come, but thus far, little research has been done how this kind of distress gets talked about in the context of psychotherapy (Pachauri & Reisinger, 2007; Swim et al., 2009). In order to begin filling this gap, the purpose of this study was to answer the following question: How and how often do clients talk about climate change in therapy and how do clinicians receive and respond to comments or concerns raised by clients about climate change?

#### **Research design**

The study used a mixed-methods multi-sectional design using a two-part online survey instrument. The purpose of the first (quantitative) section of the study was twofold: it provided an overall picture of how, where, and when adult clients discuss climate change in therapy in general (thus giving a context for section two), and it determined whether participants met inclusion criteria for the second section. The purpose of the second (qualitative) section was to explore the ways in which mental health clients have expressed climate-change-related distress in the therapeutic setting, how clinicians have responded, what meaning they have made of their clients' distress, and what treatments, modalities or approaches have proved most successful in addressing climate-change-related distress.

#### **Validity and reliability**

In an effort to ensure face validity, content validity, and construct validity, the survey was reviewed and critiqued by two experienced mental health clinicians who have worked in the field

for at least two years before it was sent out. The qualitative data was also independently reviewed for coding schemes which I then compared with the coding schemes that I had developed. (Drake & Johnson-Reid, 2008). The survey was also filled out by two mental health clinicians who met inclusion and exclusion criteria before it was disseminated in order to ensure reliability.

## **Sample**

**Inclusion criteria.** In order to take part in Section 1 of the survey, potential participants needed to meet the following criteria: participants had to be able to read and write in English; participants had to be able access to a computer and the internet and must have had sufficient computer skills to navigate the survey; participants had to have completed (or had to be currently enrolled in) graduate or postgraduate training to practice psychotherapy; participants had to be currently practicing outpatient or inpatient psychotherapy in the United States (or had to have done so within the last 5 years); and participants had to have worked with adult clients.

In order to be invited to take part in Section 2 of the survey, participants also needed have answered “yes” to the question “In your clinical experience, how often have you had a client discuss climate change with you (either briefly or at length) in an emotionally significant way?”.

**Recruitment process.** The study used targeted snowball sampling to obtain a nonprobability convenience sample. Snowball sampling (which involves recruiting likely candidates and asking them to recruit other likely candidates, thus creating a ‘snowball’ effect) is used often in exploratory research and is “useful for hard-to-reach or hard-to identify populations for which there is no sampling frame, but the members of the population are somewhat interconnected (Engel & Schutt, p. 126). In this case, potential participants were contacted via email and/or social media with a flyer, a study description, and an invitation that included the

link to the survey and a request to share the survey with others who might also be eligible. Emails and online posts were not only shared with friends and colleagues, but also with mental health professionals I did not know personally but was connected to through membership in online groups related to psychotherapy on Facebook, LinkedIn, and Reddit. This recruitment process was repeated several times during the study in order to reach as many potential participants as possible.

It is often difficult to obtain a demographically representative or proportionate sampling on such a small survey (particularly in the qualitative section which had significantly fewer participants), but I worked to ensure generalizability and include non-dominant voices by contacting national groups and associations of clinicians of color and queer/trans clinicians, such as the “Association of Black Psychologists”, “LGBT Social Workers” and the “Indian Health Services Division of Behavioral Health” asking them to share the survey with their members in order to promote inclusivity and diversity within the sample.

**Recruitment safeguards.** In order to ensure that the study met ethical standards and safeguards, the survey was reviewed and approved by the Human Subject Review (HSR) Committee at Smith College before recruitment began. The study also used an online survey instrument in which safeguards have already been built into the technology of the product: all responses were anonymous and I had no way of obtaining (and thus no way of sharing) any identifying information. Moreover, although it is possible that I had a personal or professional relationship with some of the participants, the fact that the survey was anonymous ensured that there was no appearance of coercion, as I had no way of knowing who participants were or whether I had a relationship with them or not. Finally, at the informed consent checkpoints



leading to both Section 1 and Section 2, participants were urged not to include any identifying information about their clients.

**Informed consent.** Before entering the survey, participants were informed of the risks and benefits associated with taking part in the study as well as their right to decline participation. They were then asked to indicate their informed consent by clicking an “agree” button that led them to the survey itself. Participants who were invited to take part in Section 2 of the survey were again informed of their right to decline and asked to indicate their informed consent to the second set of questions by clicking an “agree” button.

**Risks of participation.** Before entering the survey, participants were informed that although the risks of participation in the study were expected to be minimal (as the questions in the survey pertained to their clients’ emotional reactions to climate change and not their own), there was some risk that participation in the survey could produce feelings of emotional discomfort or distress for some participants, as thinking about climate change could produce feelings of emotional discomfort or distress for some participants. Participants were then provided a link to a webpage with tips for coping with distress related to climate change.

**Benefits of participation.** Participants were also informed of the potential benefits to participation prior to entering the survey. These benefits included both personal gains (as studies (including Verplanken & Roy, 2013; Milfont, 2012; Veldman, 2012; and Hornsey et al., 2015) have shown that thinking and talking about the psychological impacts of climate change can improve feelings of self-efficacy and commitment to environmental causes) and professional development (as the participation in the survey would lead them to contemplate the psychological impact of climate change on their clients, and research indicates that there will be an increase in the number of mental health clients experiencing climate-change-related distress in

the years to come (Swim et al., 2009; Coyle & Van Susteren, 2012). They were also informed that their participation would benefit both the field of social work and society as a whole, because the study is expected to help to fill a significant gap in the literature on the indirect psychological impacts of climate change.

**Data collection.** All data for the study was collected and stored by an online survey instrument provided by Qualtrics.com. Qualtrics collected and coded each individual participants' responses while removing identifying information (such as IP addresses) before the responses were made available to me. As noted, participants were strongly discouraged from including any information that could be used to identify themselves or their clients.

### **Data analysis**

As a mixed-method survey, the study was both explanatory and exploratory in nature. For data analysis in Section 1, I coded the data and created a codebook that outlined the post-hoc testing I wanted to be performed. The data from Section 1 was then gathered on an excel spreadsheet and quantitative statistical analysis (including t-tests, oneway anovas, Bonferroni post hoc testing, Tomhane post hoc testing, and Spearman rho correlation testing) was performed by Marjorie Postal of Smith College. The purpose of the testing was to determine what, if any, relationships existed between various data gathered in this section.

The data from Section 2 was analyzed using a general inductive analysis process. General inductive analyses “use detailed readings of raw data to derive concepts, themes, or a model through interpretations made from the raw data by an evaluator or researcher” (Thomas, 2006, p. 238). The analysis process was progressive in nature; throughout the data collection period, I read and reread responses, methodically looking for and organizing responses according to thematic connections, and frequently re-assessed these themes as new data came in. I sought

patterns not only across responses but also in relation to the literature reviewed on the subject. When possible and appropriate, I also quantified responses to questions that lent themselves to “yes” or “no” answers. This involved some interpretation on my part when a response did not specifically use the words “yes” or “no” but I was conservative in my interpretation, creating a third “mixed response” category when responses were unclear or participants appeared to be of two minds.

## CHAPTER IV

### FINDINGS

The purpose of this mixed-method exploratory study was twofold: First, the study gathered quantitative information from 160 mental health professionals about whether, how, and how often mental health clients discuss, either in passing or in depth, the subject of climate change. Second, the study gathered qualitative information from 35 therapists about how they receive and respond to their client's emotional reactions to climate change within the therapeutic setting.

The survey data suggests that currently some – though not many – mental health clients bring up climate change during therapy, that this may be happening more frequently over time, and that the subject is more commonly raised in passing comments than in emotionally significant conversations. However, the data also indicates that emotionally significant discussions about climate change are taking place between therapists and their clients and that when they do therapists often consider their client's emotional responses to climate change to be healthy.

While the majority (73.2%) of those therapists who participated in the study believe that climate change was relevant to their field, many (more than half of those who participated in Section 2 of the survey) do not feel that their training has equipped them to deal with the subject. The study also suggests that therapist's own emotional reactions to climate change may impact how they receive and respond to clients who discuss climate change during therapy. These

findings will be presented in detail below, starting with demographic information, followed first by quantitative findings and data analysis, and next with qualitative findings and data analysis.

### **Demographic Data**

**Educational background.** The online survey collected data from 162 individual participants, but two of these had missing data. As such, the data presented in the demographic and quantitative sections comes from 160 valid responses. Participants were first asked about the field in which they had received or were working towards their degree. 50% of the participants were trained in Social Work, 28.8% were trained in Psychology, 7.5% were trained in Marriage and Family Therapy, and 8.1% were training in Mental Health Counseling. Additionally, 5.6% of participants selected "other" and were given a text box in which to provide clarification. Their responses included Psychiatry, Psychoanalysis, and Counseling Psychology, as well as peer counseling and "lay psychoanalysis". Responses to this question are represented in Table 1 below.

**Years of practice.** Participants were then asked about their number of years of practice. 40% indicated that they had been in practice for 11 or more years, 18.1% had been practicing between 6 and 10 years, 19.4% had been practicing between 3 and 5 years, and 22.5% had been in practice for 1-2 years. These responses are represented in Table 1 below.

**Clinical setting.** Next, participants were asked to indicate the clinical setting in which they currently work. 35.6% of participants said they worked in private practice, 24.4% worked in Community Mental Health, 5.6% worked in a Psychiatric Hospital or Institution, 6.9% worked in a Medical Office or Community Health Clinic, 5.6% worked in College or University Counseling, and 3.8% work in a Social Service Agency. Additionally, 18.1% of participants selected "other" and were given a text box in which to provide clarification. Several of those

who selected "other" did so because they worked in two or more settings at once, and due to a programming error in the survey, they were unable to select more than one setting, but other clinical settings that were listed included Veterans Affairs (VA) clinics and hospitals, jail, outpatient clinics, military, hospice, hospitals and nonprofit agencies. These responses are represented in Table 1 below.

**Geographic setting.** Participants were asked to describe the geographic settings in which they worked. 65.6% indicated they worked in urban settings, while 22.5% worked in suburban settings and 11.9% worked in rural settings. These responses are represented in Table 1 below.

Survey participants were also asked to identify the state and county in which they worked. States with the most representation included California (24.2%), New York (18.3%) Massachusetts (17%) and Washington (10.5%), but participants also came from AK, CO, CT, FL, GA, IL, KS, ME, MD, MT, NH, NJ, NC, OH, OR, RI, SC, TX, UT, VT, and WI.

**Table 1. Demographic data of survey participants**

n=160	Frequency	Valid Percent
<i>Please select the field in which you received (or are working to receive) your degree:</i>		
Psychology	46	28.8
Social Work	80	50
Marriage and Family counseling	12	7.5
Mental Health Counseling	3	8.1
Other	9	5.6
<i>How long have you been practicing psychotherapy?</i>		
1 - 2 years	57	22.5
3 - 5 years	48 39	19.4

6 - 10 years	9	18.1
11 + years	64	40.0

*Please describe the clinical settings in which you currently work:*

Private Practice	57	35.6
Community Mental Health Agency	39	24.4
Psychiatric Hospital or Institution	9	5.6
Medical Office / Community Health Clinic	11	6.9
College or University Counseling	9	5.6
Social Service Agency	6	3.8
Other	29	18.1

*Please describe the geographic setting in which you currently work:*

Urban	105	65.6
Suburban	36	22.5
Rural	19	11.9

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**Quantitative Data**

Quantitative data was gathered in during Section 1 of the survey, which was divided into 3 distinct pages. On the first page, respondents were asked to think about their clinical experiences with clients making passing comments about climate change during a therapy session. For clarification, the survey provided some examples of what a ‘passing comment’ might look like and noted “Here we are differentiating a "passing comment" from an "emotionally significant conversation" about climate change. A "passing comment" would likely be one in which the client speaks casually and does not appear to be seeking a sustained conversation on the topic.”

**‘Passing comments’ about climate change.** Participants were then asked three questions related to their experiences of clients making passing comments about climate change:

*Frequency of ‘passing comments’ about climate change.* Participants were first asked how often in their clinical experience they had had a client mention climate change in passing during a therapy session. Survey results indicated that clients do mention climate change in therapy, but not frequently. Of the 158 participants who responded to the question 41.1% reported that it happened ‘rarely’. 27.8% reported that this had happened ‘sometimes’ while 22.8% reported that this had ‘never’ happened. 7.6% of respondents reported that they had experienced this often and only .6% (1 participant) said that this happened ‘very frequently.’

These responses are represented in Table 2 below.

The data from this question was analyzed alongside other data from the study to determine if there were any significant differences by demographic variables. The frequency of passing comments was measured using a 5-point frequency scale where 1=never and 5= very frequently; a higher mean indicates greater frequency. There was no significant difference found



in the frequency of passing comments by the educational background or the geographic setting of the participants.

There was, however, a difference in how often clients make passing comments by participants' years of practice ( $F(3,154)=5.028, p=.002$ ). Tamhane post hoc testing showed that those who only had 1-2 years of practice reported a lower mean frequency of clients' passing comments ( $m=1.71$ ) than those who had more years of practice. Those who had 11+ years of practice had the highest mean frequency of passing comments ( $m=3.06$ ).

A significant difference was also found in the frequency of passing comments by clinical setting ( $F(6,151)=2.914, p=.010$ ). Bonferroni post hoc testing showed that the reported mean frequency of passing comments was higher in private practice settings ( $m=2.56$ ) than other clinical settings ( $m=1.83$ ).

***Number of clients making 'passing comments' about climate change.*** Next, participants were asked how many clients that they had worked with had mentioned climate change in passing during a therapy session. Survey results were fairly mixed, with most participants having anywhere from 0-6 clients bringing up the topic in passing. Of the 158 participants who responded to the question, 27.2% said they had had 3-6 clients bring up climate change in passing and 25.9% reported having 1-2 clients bring it up, while 23.4% reported that no clients had ever brought up climate change in passing. 10.8% of the respondents said they had had 7-12 clients bring it up, and 12% (20 participants) had had more than 13 clients mention climate change in passing during a therapy session. These responses are represented in Table 2 below.

The data from this question was analyzed alongside other data from the study to determine if there were any significant differences by demographic variables. A t-test demonstrated that there was a significant difference between the number of clients making

passing comments about climate change and the educational background of the participants ( $t(156)=2.409, p=.017$ , two-tailed): those who were trained in Social Work reported a significantly lower mean number of clients ( $m=2.38$ ) than those with other degrees ( $m=2.88$ ). The number of clients making passing comments were measured using a 5-point frequency scale where 1=0 and 5=13+. A higher mean indicates greater number of clients.

A oneway anova also showed that there was a significant difference in the reported number of clients making passing comments and participants' years of practice ( $F(3,154)=10.140, p=.00$ ). Bonferroni post hoc testing showed that those who only had 1-2 years of practice reported a lower mean number of clients making passing comments ( $m=1.68$ ) than those who had more years of practice. Those who had 11+ years of practice had the highest mean number of clients making passing comments ( $m=3.06$ ).

***Rate of 'passing comments' about climate change over time.*** Finally, participants were asked about if and how the rate of passing comments about climate change had changed during the course of their work. Survey results indicated that the rate of these comments may or may not be increasing over time: while a roughly a quarter (22.9%) of respondents indicated that they were not sure if there was any change in the rate of passing comments about climate change, the majority of participants were split almost evenly between those who believed that there was an increase in passing comments about climate change (37.6%), and those who believed the rate had stayed the same over time (38.9%). Only 1 participant saw a decrease in these comments over time. Responses to this question are represented in Table 2 below.

**Table 2: Passing comments about climate change:**

n=158	Frequency	Valid Percent
<i>In your clinical experience, how often have you</i>	52	

*had a client mention climate change in passing during a therapy session?*

Never	36	22.8
Rarely	65	41.1
Sometimes	44	27.8
Often	12	7.6
Very Frequently	1	.6

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n=158	Frequency	Valid Percent
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*In your clinical experience, how many clients have mentioned climate change in passing during a session?*

0 clients	37	23.4
1 - 2 clients	41	25.9
3 - 6 clients	43	27.2
7 - 12 clients	17	10.8
13 + clients	20	12.7

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n=158	Frequency	Valid Percent
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*Over the course of time, have you seen the rate of passing comments about climate change...*

Increase	59	37.6
Decrease	1	.6
Stay the same	61	38.9
Unsure	36	22.9

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**‘Emotionally significant conversations’ about climate change.** On page 2 of the first section of the survey, respondents were asked to think about their clinical experiences with client

who had discussed climate change in an emotionally significant way. For clarification, the survey stated:

Here we are differentiating an "emotionally significant conversation" about climate change from a casual "passing comment"; in the latter instance the client likely would not appear to be in significant distress or to be seeking out a sustained conversation, while in the former instance a client might appear to need or desire a meaningful exchange on the subject and would likely convey that the topic is of some emotional significance to them. Psychological distress around climate change is not required for the exchange to be considered an "emotionally significant conversation" but is likely.

Participants were then asked 4 questions about their experiences having 'emotionally significant conversations' with clients about climate change:

***Frequency of 'emotionally significant conversations' about climate change.*** Survey results indicated that for most therapists, clients do not engage in emotionally significant conversations about climate change very often. Of the 152 participants who responded to the question, 46.7% reported that this had 'never' happened and 38.8% reported that it happened only 'rarely'. 11.8% of those who responded to the question reported that this had happened 'sometimes' and only 2.6% said that it happened 'often'. Responses to this question are represented in Table 3 below.

The data from this question was analyzed alongside other data from the study to determine if there were any significant differences by demographic variables. A t-test demonstrated that there was a significant difference in the frequency of 'emotionally significant conversations' about climate change and the educational background of the participants

( $t(150)=2.344$ ,  $p=.020$ , two-tailed). Those who were trained in Social Work reported a lower mean frequency of discussion ( $m=1.55$ ) than those with other degrees ( $m=1.85$ ).

A oneway anova was also run to determine if there was a difference in frequency of emotionally significant conversations about climate change and participants by years of practice and a significant difference was found ( $f(3,148)=4.362$ ,  $p=.006$ ). The results of Bonferroni post hoc testing showed that the difference was between those with 1-2 years of practice ( $m=1.28$ ) and those with 3-5 years ( $m=1.81$ ) or 11+ years of practice ( $m=1.85$ ). A lower mean indicates less frequent conversations.

A oneway anova was also run to see if there was a significant difference in the reported frequency of emotionally significant conversations and clinical setting and a significant difference was found ( $f(6,145)=3.608$ ,  $p=.002$ ). Bonferroni post hoc testing showed that the participants working in community mental health reported significantly lower frequency of conversation ( $m=1.46$ ) than those working in either private practice ( $m=1.96$ ) or social service agencies ( $m=2.50$ ).

Finally, a oneway anova was run to see if there was a difference in reported frequency of emotionally significant conversations about climate change and geographic setting. No significant difference was found.

***Number of clients having ‘emotionally significant conversations’ about climate change.*** Survey results indicated that the majority of the therapists who participated in the survey have had few, if any, clients engaging in emotionally significant conversations about climate change during therapy. Almost half of the participants reported that they had never had a client discuss climate change with them in an emotionally significant way, and roughly a third of the participants reported only having 1 or 2 clients engaging in emotionally significant conversations

about climate change during therapy. However, the results also indicate that there is a significant, if small, population of clients seeking out such conversations: 10.5% of those who responded reported having 3-6 clients engaging in such conversations, while 4.6% reported having 7-12 clients discussing the topic in a way they considered to be 'emotionally significant'. Only 3 participants (2%) reported having 13 or more clients bring up climate change in such a way. Responses to this question are represented in Table 3 below.

The data from this question was analyzed alongside other data from the study to determine if there were any significant differences in the number of clients having emotionally significant conversations by demographic variables. A t-test demonstrated that there was a significant difference in the number of clients having emotionally significant conversations about climate change and the educational background of the participants ( $t(151)=2.395$ ,  $p=.018$ , two tailed). Those who were trained in Social Work reported fewer clients having emotionally significant conversations about climate change ( $m=1.59$ ) than did those with other degrees ( $m=1.95$ ).

A oneway anova was run to see if there was a difference in reported number of clients having emotionally significant conversations about climate change and the participants years of practice and a significant difference was found ( $f(3,149)=4.130$ ,  $p=.8$ ). Bonferroni post hoc testing showed that those with 1-2 years of experience reported a lower mean number of clients ( $m=1.27$ ) than those with 6-10 years of experience ( $m=1.93$ ) or 11+ years of experience ( $m=1.92$ ).

A oneway anova was also run to see if there were any significant differences in the reported number of clients having emotionally significant conversations and the participants' clinical setting and a significant difference was found ( $f(6,146)=3.126$ ,  $p=.007$ ). Bonferroni post

hoc testing showed the differences was between those working in private practice ( $m=2.09$ ) and those working in community mental health ( $m=1.47$ ).

Finally, a oneway anova showed that there were no significant differences in the reported number of clients having emotionally significant conversations about climate change by geographic setting.

***Rate of ‘emotionally significant conversations’ about climate change over time.***

Participants were asked about whether and how the rate of emotionally significant conversations about climate change had changed over the course of time. Survey results indicated that for at least half of the participants (53.3%) there had not been a change in the rate of emotionally significant conversations about climate change occurring in therapy. However, a quarter of the participants (25%) did report an increase in the rate of these conversations while a slightly smaller number of participants (21.1%) indicated that they were unsure if there was a change in rate or not. Only 1 participant reported that there had been a decrease in such conversations over time. Responses to this question are represented in Table 3 below.

***Common emotions expressed during ‘emotionally significant conversations’ about climate change.*** The final question of the second page of this section of the survey asked participants to select the most common overall emotion expressed by their clients during emotionally significant conversations about climate change in the therapy session. The results of this question indicate that the primary emotion driving conversations about climate change in therapy is ‘anxiety/fear’ (32.1%). A small number of participants (14.6%) selected ‘anger/frustration’ and even fewer (6.6%) selected ‘apathy/ambivalence’. Only 1 participant reported that ‘guilt’ was the most common emotion expressed when discussing climate change. However, 15.3% of participants chose ‘other’ on this question and 13 of these indicated that the

question was not applicable to them as they had never had a client engage with them in an emotionally significant conversation about climate change. Other write-in answers included ‘anxiety/sadness,’ ‘hopelessness,’ ‘sarcasm,’ and ‘slight worry.’ 22.6% of those who responded to this question indicated that they were ‘unsure’. Responses to this question are represented in Table 3 below.

**Table 3: Emotionally significant conversations about climate change**

n=152	Frequency	Valid Percent
<i>In your clinical experience, how often have you had a client discuss climate change with you (either briefly or at length) in an emotionally significant way?</i>		
Never	71	46.7
Rarely	59	38.8
Sometimes	18	11.8
Often	4	2.6
n=153	Frequency	Valid Percent
<i>In your practice, how many clients have discussed (either briefly or at length) climate change in an emotionally significant way?</i>		
0 clients	74	48.4
1 - 2 clients	53	34.6
3 - 6 clients	16	10.5
7 - 12 clients	7	4.6
13 + clients	3	2
n=152	Frequency	Valid Percent
<i>Over the course of time, have you seen the rate of</i>		



<i>emotionally significant discussions about climate change...</i>			
	Increase	59	37.6
	Decrease	1	.6
	Stay the same	61	38.9
	Unsure	36	22.9
n=137		Frequency	Valid Percent
<i>In your clinical experience, how many clients have mentioned climate change in passing during a session?</i>			
	Anxiety/Fear	44	32.1
	Grief/Sadness	11	8
	Anger/Frustration	20	14.6
	Apathy/Ambivalence	9	6.6
	Guilt	1	.7
	Other	21	15.3
	Unsure	31	22.6

**Personal and professional experiences related to climate change.** In the third and last page of Section 1 of the online survey, participants were asked 3 final questions related to their own experiences, rather than those of their clients, regarding climate change.

**Level of concern about climate change amongst participants.** Survey participants were asked to rate their own level of concern about climate change on a likert scale ranging from ‘optimistic’ to ‘alarmed.’ Results indicate that the vast majority of those therapists who participated in the online survey experienced some level of concern about climate change. Of these, most were ‘very concerned’ (36.6% of all participants), but many were also ‘concerned’ (22.9% of all participants) or ‘alarmed’ (20.9% of all participants) about climate change, and fewer were only ‘somewhat concerned’ (15.7% of all participants). Only 5 participants (3.3%)

reported that they were ‘not concerned’ about climate change, and 1 (.7%) indicated that they were ‘optimistic’ about it. Responses to this question are represented in Table 4 below.

**Table 4. Level of concern about climate change amongst survey participants**

n=153	Frequency	Valid Percent
<i>How would you rate your own level of concern about climate change?</i>		
Optimistic	1	.7
Not concerned	5	3.3
Somewhat concerned	24	15.7
Concerned	35	22.9
Very Concerned	56	36.6
Alarmed	32	10.9

**Relevancy of climate change to clinical work and professional field.** Participants in the survey were asked to describe how they saw climate change as it relates to both their own clinical work and their professional field as a whole by selecting one of six options. The results indicate that almost all participants saw climate change as relevant to their field, though not all felt that it was relevant to their own work specifically. Over a third of participants (37.3%) indicated that they felt that climate change was relevant to both their own work individually as well as to their field as whole, while another third (35.9%) believed that climate change was relevant to their field as a whole but not to their own work specifically. A small number (9.2%) reported that climate change was not relevant to either their work or their field as a whole, while a similar number (10.5%) stated that they were undecided. Only 6 participants (3.9%) reported that they had no opinion at all while 5 participants (3.3%) reported that climate change was relevant to their own clinical work but not relevant to their field in general. Responses to this question are represented in Table 5 below.

**Table 5. Relevancy of climate change to individual clinical practice and to professional field**

n=153	Frequency	Valid Percent
<i>Do you consider climate change to be an important or significant issue for you as a clinician...</i>		
Climate change is relevant to my clinical work as well as the field as a whole.	57	37.3
Climate change is relevant to my field in general but not to my clinical work specifically.	55	35.9
Climate change is relevant to my clinical work but not to my field in general.	5	3.3
Climate change is not relevant to my clinical work or my field as a whole.	14	9.2
Undecided	16	10.5
No opinion	6	3.9

***Specialized training experiences.*** Lastly, participants were asked to indicate if they had received any specialized education, training, or practice experience involving ecopsychology,

ecotherapy, wilderness therapy, or related fields/modalities. The vast majority of survey participants (86.9%) did not have any such background, while 13.1% said that they did.

After submitting their responses to the demographic and quantitative questions described above, participants were either exited from the survey, or, if they met the inclusion criteria for further qualitative questions, were invited to participate in Section 2 of the online survey. Of the total participants, 74 met the criteria for Section 2 and were invited to participate. Of those, 36 agreed and continued on, though one of those responses was removed from the analysis as the participant wrote “n/a” for all but the first question in which they indicated that they had not had any emotionally significant conversations about climate change with their clients. The data from the remaining 35 participants in that section is described below.

### **Qualitative data**

The purpose of Section 2 of the online survey was to seek qualitative information from those participants who had noted in Section 1 of the survey that they had had at least one experience in their clinical work of having an ‘emotionally significant conversation’ with a client about climate change. As noted in Chapter 2, there is virtually no empirical data on how climate change is discussed or thought about in the context of psychotherapy. Having identified and invited therapists in Section 1 who could speak to these experiences, the online survey provided a brief introduction to the qualitative section, noting,

Questions are open-ended and text boxes are large, so please feel free to provide as much or as little detail as you feel comfortable (as a reminder, please do not include any identifying information about the client). If you have had multiple clients who have brought up climate change, feel free to speak about any or all of them.

The sections below briefly describe some of the major themes that emerged from their responses.

**General Themes.** The first question that survey participants were presented with in the qualitative section was an open ended request for descriptions of their clients' reactions to climate change and the nature of the emotionally significant conversation(s) that took place. Because the question was so broad, responses were extremely varied and thus cannot be generalized. However, some general themes arose in these responses as well as in the responses to other questions:

***Politics.*** 11 respondents made note of the political nature of their clients' comments and concerns around climate change. For example, one described a client who "is profoundly distressed by geopolitical issues such as climate change, gentrification, and income inequality. These are themes that he perseverates on during most sessions." Another noted, "Climate change has come up in the context of discussing clients feelings about the political environment. The client expressed frustration at Republicans and an overwhelming feeling of hopelessness and loss of the country, including feeling helpless around policies around the environment and not doing enough to protect it."

***Doom and future anxiety.*** 10 participants described their clients' sense of doom and/or anxiety about the future (i.e., "a client with anxiety uses it as an example of one of the reasons we are all doomed (climate change and republican response), anticipating some sort of mad max situation;" and "Client brought it up on an exceptionally hot day, feeling scared, pessimistic and anxious about her feelings of impending climate change and the results on humanity and nature").

***Helplessness and powerlessness.*** 10 responses included comments related to clients' feelings of powerlessness and helplessness in relation to climate change. For example, one noted "Client seems to feel a sense of frustration, powerlessness, identification with and victimization

with regards to climate change;” and another noted “Sometimes these conversations correlate to... a feeling of powerlessness that has to be addressed in the larger world in order to help manage it in their personal world”.

***Inconvenience and change in lifestyle.*** 7 participants noted that their clients’ distress around climate change was related to the inconveniences and changes in their lifestyle as a result of climate change. A number of these expressions of irritation were related to changes in weather patterns, though one described their client’s irritation at measure taken to protect the environment while another described their client’s irritation at the lack of such measures.

***Concern for vulnerable people and animals.*** 7 responses included comments related to clients’ feelings of empathy, concern, or connection to other beings who would be hurt by climate change. For example, one described a client who “becomes obsessive regarding climate change and consequences of economical disadvantage between socioeconomic class and response after natural disasters,” while another described a client who “was in the Peace Corps and is more concerned for the developing world and how climate change will impact those more vulnerable populations.”

***Other themes.*** Several other themes also arose, including feelings of uncertainty and unpredictability, anxiety and/or sadness around children and future generations, feelings of alienation from others related to climate change, concerns about personal safety, and concerns about location.

***Client demographics.*** One of the questions in Section 2 of the survey asked participants about client demographics. While some data is presented below, it should be noted that the responses cannot be generalized because of the breadth of the question and the way participants responded; some provided no details while others provided a great deal, and some focused on

some demographic categories while others focused on others. Of the 35 survey participants, 16 provided information on their clients' gender (9 female, 10 male), 10 provided information on their client's ages (4 clients were in their 20's, between 1 and 3 clients were in their 30's, between 2 and 4 clients were in their 40's, 2 clients were in their 50's, and 1 was in their 80's), 10 provided information on their client's racial identity (11 clients were white, 1 client was mixed-race), and 9 provided information on their client's class backgrounds (at least 6 clients were low-income, 3 clients were middle class, and 2 clients were upper middle class). Similarly, although a significant number of respondents (26 out of 35) provided diagnosis information, it would not be appropriate to generalize from this data, as some of them referred to multiple clients without indicating how many they were talking about and a number of them described clients with multiple diagnoses at once. That said, 14 responses described clients with mood disorders, 7 responses described clients with trauma histories, 4 responses described clients with personality disorders (including 2 with narcissistic personality disorder), 2 responses described clients with psychotic symptoms, 1 described a client on the autism spectrum, and 1 described clients in acute grief. Several also noted substance abuse.

**Healthy vs. unhealthy responses.** When asked whether they considered their clients' responses to climate change to be healthy and appropriate, 57% said 'yes', while 17% said 'no' and 26% gave mixed responses. Of those who said 'no', two cited pathological and delusional responses, while several stated that they felt their client's emotional reactions were 'exaggerated'. Several of those who said either 'no' or gave mixed answers noted that they felt that the client's *feelings* were healthy and appropriate, but the ways in which they responded or expressed these feelings were not (for example, one noted that "the degree of overwhelm can prevent a feeling of

effectiveness," while another noted that his client's emotional response "enables unhealthy behaviors such as drinking and isolation.")

**External and internal responses from therapists.** Participants in Section 2 of the online survey were asked a series of questions regarding their responses to clients when the topic of climate change is brought up. Two questions focused on their external responses (first to more substantive “emotionally significant conversations”, and then to more casual “passing comments” about climate change) and one focused on their own internal response.

*External response.* With regard to their external responses to “emotionally significant conversations” about climate change, there was a fair amount of consensus among those surveyed: most indicated that they responded to these conversations with empathy and validation – one or both of these words, particularly the latter, came up in almost half of the responses. Several reported that they asked exploratory questions, particularly regarding coping and self-care. Over 20% of the participants indicated that they had disclosed their agreement with their client’s concerns (though 1 of these also pointed out that, at least when talking to clients who expressed climate change denial, they were careful not to do unless “appropriately asked” and only if they felt that it would be helpful to the client.)

With regard to their external responses to “passing comments” about climate change, a number participants noted again that they responded with validation and empathy, though this came up less frequently than it had in the earlier question about “emotionally significant discussions”. Roughly the same amount of participants indicated that they asked exploratory questions, and a little less a quarter indicated that they had disclosed their agreement with their client’s concerns. Several also described ways in which they created (either with verbal invitation or with a nod) a space for the client to speak further about their concerns if they



wanted to, though interestingly, one participant noted that “Often these are ‘doorknob moments’ and I feel caught off-guard and uncertain about the most ethical and appropriate way to proceed.”

***Internal Response.*** Participants were also asked about their internal emotional responses to clients bringing up the subject of climate change during a session and how, if at all, their emotions affected their response or assessment. 62% of respondents noted that they themselves experienced feelings of fear, anxiety, anger and/or sadness when the topic arose and number of participants discussed ways in which their own emotions around climate change impacted their connection to clients who raised the subject in therapy. 24% described this as a positive experience, noting, for example, that they felt “aligned,” “less alone,” “more able to connect with my client's vulnerability and fear,” and “happy to hear when people bring this topic up.” A few participants discussed how their own beliefs and feelings about climate change might impact their work if confronted with a client who did not believe in or care about the effects of climate change, one noted they would “probably need support” in such a scenario, and one stated candidly, “I become angry and experience negative countertransference with clients who disregard environmental issues. I like clients more if they are environmentally conscious. This may influence diagnosis and rapport.”

Indeed, this participant was not alone in reflecting that their own emotions about climate change likely impacted their assessment of clients who raised the topic, though not all experienced this as “positive” countertransference: one participant expressed concern that their own fears about climate change may influence their responses “including potentially maintaining a discussion on what might have been a passing comment or alternatively not focusing on the fears for fear of inciting my own anxiety,” while another participant stated, “Unfortunately I find myself internally minimizing their fears. I am working on being more neutral.” However, a

significant number (29%) of participants discussed the importance of not letting that happen. As one noted, “I recognize that I share some of these same feelings and accept the very disciplined practice of boundaries and hearing and responding to their narrative, not my own.”

**Theoretical interpretations.** Of the 35 therapists who participated in the survey, 16 responded affirmatively to the question of whether they had considered their clients’ emotional response to climate change through the lens of psychodynamic theory. Two provided their very brief interpretation (“somewhat defensive” and “Sometimes it manifests as a defense, other times not”) while two indicated that they had utilized psychodynamic theories somewhat, but did not elaborate on their interpretation, and another responded at length but did not speak to the question. One participant indicated that they saw their clients’ distress around climate change in connection to Attachment Theory: “I believe their response is directly related to their perception of the world as potentially dangerous and their fears of not being cared for (in all cases including attachment ruptures).” The rest provided analyses that generally utilized one of two major psychodynamic theories: Ego Psychology and Object Relations Theory.

**Ego Psychology.** In Ego psychology, an individual’s character structure and psychological functioning are shaped by the ego’s attempts throughout the developmental lifecycle, via defensive techniques as well as functional strengths, to manage external and internal stimuli and maintain stability in the face of stressors (Schamess & Shilkret, 2011). While none of the participants actually identified Ego Psychology by name, a number of them saw distress around climate change as an ego defense; namely, displacement. These respondents expressed their belief that when their clients discussed distress around climate change, they were essentially shifting their anxieties and distress about other more personal things onto the environment as a way of managing and diffusing thoughts and emotions that would otherwise

overwhelm them. As one participant put it, "Climate change is one aspect of clients experience of hopelessness and loss of control. At times it is the focus of emotion when more personal experiences feel overwhelming."

While that participant and others spoke about displacement generally, some gave more specific interpretations. One noted that they understood their client's distress around climate change to be a means of expressing "her anger/fear/frustration about controlling men in her past." Another saw the concerns about climate change expressed by a young man on the autism spectrum as "projection of his feelings of exclusion onto the environment which can't speak for itself" and an expression of "his understanding of his experiences of social exclusion as connected to the experience of oppression of animals/the environment." One expressed their belief that their client was displacing feelings of low self-worth and anxiety about the future onto climate change and noted,

Though in my opinion the client had very valid reasons for feeling worried about the impact of climate change, during therapy, it may have served as a helpful defense mechanism to displace the conversation onto climate change and other social justice issues, as a means of establishing greater safety so that the client could then process their feeling related to issues in their personal life.

Ego psychology was also mobilized by one participant who cited Robert Peck's theory of aging and ego development and saw their client's emotional response to climate change as a healthy task of aging ("facing mortality with efforts toward meaningful activity and generosity towards the next generation") and an indication of the client's unconscious "view of an interconnectedness of the earth's future and humanity's future."

*Object Relations theory.* A number of participants looked at their clients' concerns about climate change through the lens of Object Relations theory, in which psychological functioning is understood in relation to an individual's internal psychic world and the powerful internalized objects and relationships that exist within each individual and shape our behaviors and sense of the world around us (Melano Flanagan, 2011). One participant focused on Freud's concept of Melancholia,

I view this client's experience of depression as related to a kind of melancholia in which, rather than experiencing the loss of an object, this client has had to deal with the absence of social relationships that never were. His reactions to war and climate change suggest a resignation to 'reality' which are counter to his desires for the way things should be.

Others focused on primary objects (i.e., caregivers). Here the connection between mother and 'mother earth' came up repeatedly. One participant noted that they had used the concept of 'mother earth' to "reference general levels of relatedness where emotional development was formed via prior experiences with nature." Another indicated that they primarily used a trauma-informed model but suggested that "If I were to use an object relations perspective for instance I might say she were transferring feelings about her mother onto her feelings about the earth's vulnerability." Similarly, one participant (who actually responded "no" to the question on theory but had described a theoretical interpretation in their answer to a different question) noted, "One's mother is dying due to male privilege/unconsciousness run rampant."

While these participants focused on the vulnerability of the primary object (i.e., mother/mother-earth), others focused on the vulnerability of the client themselves. One participant noted:

My client had experienced his parents as largely irresponsible, deceptive, and un-nurturing. As a child, it's thus likely that he viewed the world as similarly un-nurturing, un-safe, and unable to meet his and others' needs.

A different participant stated:

The client responded to their trauma history by internalizing blame; likewise, they responded to the climate change problem by internalizing blame and feeling anger towards themselves on account of their lack of contribution.

Another noted that their client had “apparently internalized his father's pathological worries.”

**Treatment modalities.** One of the questions posed to participants was whether they had seen a reduction in their clients’ distress around climate change and/or an increase in insight around that distress, and if so, what modalities they found to be successful. The question was open-ended and responses varied: 6 participants either left this question blank or gave answers that were incongruent to the question. Of the 29 who did answer directly, 41.4% stated that they had not seen a reduction in their client's level or distress, while 20.7% said that they had (37.9% of the participants gave answers that were mixed).

Of those who reported a decrease in distress and/or increase in insight, successful modalities or treatment descriptions varied. One noted that treatment of PTSD symptoms had helped the client become less overwhelmed in general, so that although her fears about climate change were actually increasing, she was better able to manage her emotions around it. Another reported that psychodynamic therapy "had significant positive effect as it validated their subjective experience rather than framing their reaction as abnormal." Another reported that their client's ability to connect with others (beginning with the therapist) over the issue had helped reduce distress. One cited psychodynamic therapy and Motivational Interviewing as helpful,

while another cited Cognitive Behavioral Therapy (CBT) – "especially mindfulness and experiential modes," – as having been successful. Among the 'mixed' responses, a number of participants noted that they had not seen a reduction in distress or hopelessness, but had seen an increase in awareness and insight. Modalities cited by these participants included EMDR, Mindfulness practice, Mindfulness-based Cognitive Behavioral Therapy, and Psychodynamic practice.

**Training.** When asked whether they felt that their training had adequately prepared them to work with client's struggling with climate change, half of the respondents (50%) indicated that they felt that they were not adequately prepared, while 29.4% did feel prepared. Another 20.6% of the participants provided mixed responses, with many of them stating that while their training had not prepared them to deal with the issue it had at least prepared them in a general sense to deal with things like grief and anxiety, or to 'meet the client where they are at' or make use of ecological/person-in-environment perspectives. A number of participants reported that they had sought out additional training or information in order to work with clients on this issue; as one participant noted, "If I didn't learn about it on my own then I wouldn't be prepared at all."

## **Summary**

The purpose of this exploratory mixed-methods survey of therapists in the US who work with adults was to fill a void in empirical research on climate change and psychotherapy. Although a number of studies have assessed various factors related to the psychological impacts of climate change, and although mental health clients are considered to be a population that is particularly vulnerable to the psychological distress around climate change (Coyle & Van Susteren, 2012), there is a significant lack of data on how this distress gets talked about within the therapeutic setting.

**Quantitative Summary.** As noted in detail above, Section 1 of the online survey gathered basic data around the rate and frequency of both passing comments and emotionally significant conversations about climate change in the therapeutic setting. Quantitative data gathered by the survey suggests that while mental health clients do make passing comments about climate change, this does not happen frequently, though higher frequencies were reported by those who work in private practice and by those who have been practicing for several years. On the whole, about half of the participants reported having between 1 and 6 clients who had mentioned climate change in passing, and those with more years of clinical experience reported a higher number of clients who had mentioned climate change. The results also indicate that the rate of passing comments about climate change may be increasing over time.

The quantitative data shows that emotionally significant conversations about climate change occur less frequently than do passing comments, although those with more years of clinical practice reported a higher frequency of such conversations than those who were relatively newer to the field. Those therapists with more experience also reported a higher number of clients having these conversations, though on the whole, it appears that most mental health clients are not engaging in such conversations during therapy. The survey results also indicate that these conversations appear to happen much more frequently in private practice settings and in social service agencies than in community mental health agencies. The survey results suggest that while the rate of passing comments about climate change may be rising over time, most respondents did not see a change in the rate of emotionally significant conversations about climate change over the years.

The quantitative section of the survey was taken by 160 therapists, 50% of whom were Social Workers. Post hoc data analysis showed, however, that on the whole, Social Workers

reported lower frequencies of passing comments and a lower number of clients making such comments, and they also reported lower frequencies of emotionally significant conversations about climate change and fewer clients having such conversations than those in other fields.

Finally, the quantitative section of the survey gathered data about the participants' own feelings and beliefs about climate change and found that the vast majority of those surveyed experienced some level of concern about climate change. Most believed that climate change was relevant to their field, though not all of them felt that it was relevant to their own work specifically.

**Qualitative Data.** Section 2 of the online survey gathered qualitative data from therapists who reported having at least one emotionally significant conversation about climate change with their clients. As noted above, the questions in this section were open-ended and responses were broad and varied and as a result cannot be generalized. However, responses to Section 2 do provide an interesting glimpse into the ways in which some therapists think about and respond to emotionally significant conversations about climate change that take place in the therapeutic setting.

Of note, more than half of therapists who responded noted that they themselves experienced feelings of fear, anxiety, anger and/or sadness when climate change was brought up by their clients during a session and number of participants discussed ways in which they felt they needed to manage their own emotions about climate change in order to provide proper care to their clients. Responses also seem to indicate that therapists' internal emotional response to climate change had an impact on the therapeutic relationship when clients raised the subject in therapy. A number of participants suggested that these conversations made them feel more connected to and aligned with their clients (and quite a few participants indicated that they often



disclosed their own feelings about climate change to their clients during these conversations), but others seemed to experience more complex countertransferential feelings. Almost 50% of those surveyed indicated that they utilized psychodynamic theory when considering their clients' emotional responses to climate change (most cited either Ego Psychology and Object Relations Theory). However, responses were decidedly mixed on whether and to what extent participants had found success in alleviating their clients' distress around climate change through any particular treatment modality, and more than half of the participants surveyed reported that they felt that their professional training did not adequately prepare them to deal with climate change.

In the following chapter, some of the above findings will be discussed in relation to larger themes raised in the introduction and literature review chapters.

## CHAPTER V

### DISCUSSION

The purpose of this exploratory study was to provide a snapshot of how and how often climate change is discussed in the context of psychotherapy in the United States and to illuminate how therapists think about and respond to their clients' concern or distress around anthropogenic global warming. The study gathered both quantitative and qualitative data from therapists across the US via an online survey; data in the quantitative section of the survey came from 160 participants, while data in the qualitative section came from 35 participants. In the following chapter I will discuss some of most significant findings detailed in the previous chapter and how they relate to the literature available on this topic. I will also examine the strengths and limitations of the study, make recommendations for further research and discuss some of the potential implications for practice and policy.

#### **Major findings in relation to the available literature**

**Frequency of passing comments and emotionally significant discussion about climate change.** Based on my literature review, I expected that only a small percentage of the total respondent population in Section 1 would meet the criteria for Section 2; it was my expectation that not many clinicians outside of the field of ecopsychology had had emotionally significant discussions with clients about climate change. The results of the study suggest that while it is true that these conversations do not happen frequently (of the 152 participants who responded to the question, 46.7% reported that these discussions had 'never' occurred in their clinical work), they are certainly taking place in psychotherapy. For 38.8% of respondents these

discussions occurred ‘rarely,’ for 11.8% they occurred ‘sometimes,’ and for 2.6% they occurred ‘often’. These conversations appear to occur with a relatively small number of clients (48.4% had 0 clients engaging in emotionally significant discussions, 34.6% reported only 1-2 clients, 16% reported 3-6 clients, 4.6% reported 7-12 clients and only 2% reported having 13 or more clients engaging with them in emotionally significant discussions about climate change).

I also expected that the number of clients who have made passing comments about climate change would be much higher than the number of clients who have had emotionally significant conversations about it. While the findings show that passing comments are more common than emotionally significant discussions, many more participants reported having emotionally significant discussions than I had anticipated (77.2% of participants reported having experienced a client mentioning climate change in passing at least once, while 53.3%<sup>2</sup> of

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<sup>2</sup> Readers may note the discrepancy between this figure and the related, but different, percentage listed in the paragraph above. In the survey, 46.7% of participants said they had never experienced having an emotionally significant conversation about climate change with their clients, but then 48.4% said they had had 0 clients discuss climate change with them in an emotionally significant way. This discrepancy may be related to the difference in the number of responses to each question: 152 participants responded to the question about “how often” these conversations occurred, while 153 participants responded to the question of “how many” clients had engaged them in such conversations. It may also be that some participants indicated “rarely” to the first question but then when asked to specifically think about their clients could not come up with a specific example.

participants reported having experienced a client engage in an emotionally significant discussion about climate change at least once.)

Despite an increase in global temperature during the last several decades, I actually expected that if there was any change in rate for either passing comments or discussions over time, it would be a decrease in both, which would mirror the decrease in levels of concern that has been seen comparatively in the yearly “Climate Change and the American Mind” surveys done by the Yale Project on Climate Change Communication (Leiserowitz et al., 2015). However, only 1 participant reported a decrease in passing comments (while 38.9% saw no change and 37.6% saw an increase), and only 1 participant reported a decrease in emotionally significant discussions (while 53.5% saw no change in rate and 25% saw an increase).

**Climate change distress and geographic setting.** The literature I reviewed suggested that people who lived in closer proximity to the natural world are more likely to experience distress around climate change. As such, I expected that participants who worked in rural settings would report experiencing more passing comments and more emotionally significant discussions about climate change than other participants. However, post-hoc data analysis showed that there was no significant relationship between the frequency of passing comments and the geographic setting of the participants, between the frequency of emotionally significant discussions and the geographic setting of the participants, or between the reported number of clients having emotionally significant conversations about climate change and geographic setting. It may be, as Joanna Macy suggested, that technological advances have allowed us to experience the effects of climate change on the planet as a whole in such a way that transcends one’s actual physical location, but it may also be that there simply were not enough participants from rural areas to make an accurate assessment (Over Grow the System, 2014). Further research on this topic

(perhaps working off of or modifying the EDS scale developed by Higginbotham et al. (2006)) would help to illuminate how much geographic location affects climate change related distress.

**Climate change distress and clinical setting.** None of the quantitative research I reviewed examined any correlation between climate-change-related distress and socioeconomic level, and Section 1 of my survey did not explicitly ask participants to identify the socioeconomic status of their distressed clients. However, I did ask participants in Section 1 to describe their place of work in the hopes that this might provide an opportunity to infer socioeconomic background; here the assumption would be that clinicians working at community mental health clinics, community health clinics, and social service agencies would likely see a lower socioeconomic client population than those working in private practice.

Assuming for a moment that such a correlation can be presumed (and it is not clear that it can), then post-hoc data analysis on the findings from Section 1 of the survey would suggest that on the whole, lower SES clients talk about climate change in therapy significantly less than those with higher SES: the reported frequency of passing comments was higher in private practice settings than other clinical settings and participants working in private practice reported higher frequencies of emotionally significant conversations about climate change than those working in community mental health<sup>3</sup>.

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<sup>3</sup> Testing did also show that those working in Social Service Agencies (which tend to serve clients with low SES) had the highest reported frequency of emotionally significant conversations about climate change than any other setting, but there were only 6 participants who worked in Social Service Agencies out of a total 160 participants, as compared to 57 in

There are certainly possible explanations for why it might be the case that clients from lower socioeconomic backgrounds talk about climate change in therapy less than clients from high socioeconomic backgrounds. Although individuals living in poverty are much more vulnerable to the impacts of climate change (see Pachauri & Reisinger, 2007; and Swim et al., 2009) worrying about climate change at this point is seen by some to be a kind of luxury, as we see in the media reports about ecoanxiety (see Nobel, 2007 for example). The basic premise of this assumption is that individuals facing poverty have more immediate pressing concerns (food, shelter, employment, etc.) to worry about than climate change, which is often considered to be a problem relegated to the future rather than the present (despite the fact that the scientific community has made it clear that changes will have to be made now in order to prevent global disaster in the future) and often brings up fears that are existential, rather than tangible or resource-related<sup>4</sup>.

While this argument makes logical sense on its face, there is also significant class bias inherent to the idea that having a lower socioeconomic status precludes someone from experiencing and wanting to talk to someone else about existential anxiety or concern for the

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Private Practice and 39 in Community Mental Health, and given the small sample size it is unlikely that this finding is would be replicable in a larger study.

<sup>4</sup> This argument was made to me numerous times by clinicians at the community mental health agency where I was placed during the period in which this study was undertaken.

future<sup>5</sup>. There are, in fact, numerous reasons why someone with a lower socioeconomic background might experience distress related to climate change, some of which were reflected in the responses to Section 2 of the survey. For example, one participant connected their client's climate change concerns to the fact that "He was well acquainted with a variety of exploitative and damaging institutions, including a strong distrust in corporations and governments to do the right thing," while another noted, "There is little identification with white, dominant culture and privilege, thus less cognitive dissonance re current realities and etiologies and more courage to speak truth to power." Another participant wrote

I would pose that my clients (being marginalized and suffering from an economic/social system that largely did not benefit them) felt it was another layer of oppression they felt helpless about. I also wonder if they were more attuned to these issues for the same reasons of their SES.

Given these complicating factors, we cannot conclude that the difference in levels of concern in various clinical settings shows us that socioeconomic status affects whether a client is more or less likely to talk about climate change in therapy. Moreover, it is important to note that while many mental health clients who see therapists in a private practice setting come from higher socioeconomic backgrounds and many clients who go to community mental health agencies or social service agencies come from lower socioeconomic backgrounds, there are

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<sup>5</sup> Such bias would not be anomalous in the field of psychotherapy which for a significant portion of its history was considered to only be applicable to white, wealthy, and educated individuals (Hackman, 2016).

numerous exceptions to this pattern and thus a generalizable claim about socioeconomic background and level of distress cannot be made based on these findings.

**Climate change distress and educational background.** Some of the most significant and surprising findings in post-hoc data analysis were related to the educational background of the therapists who participated in the study. While educational background was not a significant factor in the reported *frequency* of passing comments about climate change, there was a significant difference between educational background and the reported *number* of clients making passing comments about climate change: those who were trained in Social Work reported fewer clients who brought up climate change in passing comments than did participants from other fields. There was also a significant difference between educational background and reports of emotionally significant discussions about climate change: those trained in Social Work reported a lower frequency of emotionally significant conversations than did other participants and reported fewer clients having emotionally significant conversations about climate change than did other participants.

One possible explanation for these discrepancies might be related to the differences in reported distress by setting; if social workers tend to work more in community mental health than in private practice, and community mental health agency clients are less likely to talk about climate change than private practice clients, then it makes sense that social workers would report fewer passing comments and emotionally significant conversations about climate change.

### **Strengths and limitations**

**Research Question.** My goal in this study is to begin making inroads into the question of how climate change gets talked about in therapy. The fact that I was able to gather such a broad



array of data is a major strength of the study. The study sought to answer two very different but related research questions:

- 1) How and how often do clients talk about climate change in therapy; and
- 2) How do clinicians receive and respond to comments or concerns raised by clients about climate change?

Both questions yielded a great deal of data - far more than could be fully explored here due to the limited scope of this particular project. While future studies might benefit from narrowing in on either one of these questions, it was important in this instance to explore both in order to illuminate the dynamic between client and therapist. The decision to utilize mixed methods in this study was informed by the fact that neither of those questions had been asked before in the context of an empirical study. Thus, I believe that in this case the broad nature of this mixed-methods study was, over all, a considerable strength: quantitative data helps us see some larger trends and provides a context for the qualitative data, while qualitative data provides texture and nuance to the quantitative data gathered and illuminates some of the deeper issues at play when climate change is discussed in the therapeutic setting.

**Data collection and instrument.** The study was somewhat limited by its design and instrument. I chose to design the study as an online survey so as to increase my sample size and reach as wide an audience as possible. If the study had been entirely quantitative then this would have posed no problems, but because the study used mixed methods, the survey instrument limited the kind of data that could be gathered in the qualitative section. First and foremost, I was unable to ask follow-up or clarification questions in the qualitative section which meant that I

had to rely more heavily on interpretation<sup>6</sup>. The fact that it was an online survey also meant that I could not get more concrete demographic information about clients in Section 2 because I could not know ahead of time whether a respondent had had only one client with climate change distress or several. This issue was also exacerbated by the open-ended nature of the questions. My hope was that by asking making questions broad and loose I would inspire richer responses, but this stylistic choice ended up limiting the kinds of conclusions I could draw (for example, because I gave broad suggestions in my question about client demographics, some participants listed their clients' race and class while others listed gender and diagnosis, and so on, making quantitative analysis impossible).

Given these limitations, I would strongly suggest that face-to-face interviews be employed in further research on clinical responses to climate change distress. I would also suggest that further research examine these issues from the point of view of mental health clients themselves in order to get a better sense of what clients are struggling, what indicators there may be to climate change distress, and how to best meet the needs of clients experiencing distress.

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<sup>6</sup> For example, as I noted in the previous chapter, a number of participants responded to a question in Section 2 about their external response to their client's distress by noting that they "validated" their client's concerns. It is not clear, however, if all participants meant the same thing by this term. Validation for one therapist could mean "I can see that this is really troubling you," but for another it could mean, "Yes – I share that worry – climate change is very scary." In this instance and in others, it is impossible to accurately interpret the results without gathering further details.

**Sample.** The study had a strong sample size, but one limitation in the sample was the lack of information about participant demographics. As noted in Chapter 3, I took steps to increase diversity within the sample by contacting professional associations for clinicians from non-dominant identity groups. However, because the focus of my data collection was, in some ways, the clients of the participants more than the participants themselves, the demographic questions that I posed to participants about themselves were very limited in scope. Future research should include more demographic questions in order to accurately assess the diversity of the sample and to determine if participant demographics are a factor in the findings. Future research should also increase geographic diversity by reaching out to state-wide professional associations; generalization from this study is limited by the fact that participants in the study came from only 25 states, 4 of which were significantly overly-represented (and here the limits of snowball sampling are clear – all of 4 of these states were places to which I had personal ties). However, it should also be noted that the study is exploratory in nature and thus generalizability is inherently limited.

### **Implications for clinical practice, policy, and programs**

**Training and awareness.** As was noted in the findings chapter, the majority (73.2%) of the therapists who participated in the study indicated that they believed that climate change was relevant to their field – a number I found to be surprisingly high. Despite its apparent relevance, however, more than half of those who participated in Section 2 indicated that they did not feel that their training adequately equipped them to deal with the subject and quite a few reported that they had independently sought out additional training and/or information specific to climate change in order to bolster their clinical skills in this area. Given these high numbers, it seems critical that institutions of higher learning begin to consider how they should approach the issue

of climate change. Depending on the size and focus of the institution, this could mean adding a course on ecopsychology and climate change or it could mean encouraging faculty to include readings that touch on the issue. Clinicians and agencies too must begin thinking about how to better engage with their clients on this topic. This could include, as Hasbach (2015) has suggested, incorporating questions about the client's relationship to the natural world into the standard client intake, or it could include developing a therapy group for clients that focuses on climate change (such as those run by Randall (2009) and others), or it could include incorporating nature-based therapies into one's work.

The impacts of climate change are projected to increase exponentially in the coming years, and are likely to usher in significant changes to our daily lives, whether due to devastation and loss directly caused by climate change or to mitigation efforts. As we look to the future, it would be a folly to imagine that these changes will not coincide with an increase in general anxiety and distress around climate change, as much of the literature reviewed in Chapter 2 demonstrated that thinking about climate change is often attended by an increase in fear and hopelessness (Beattie, Sale, and McGuire (2011) is just one of several examples.) As the APA and NWF reports have warned, individuals already struggling with mental illness are more vulnerable to climate change-related distress than the general public, as are children, the elderly, and other groups (Swim et al., 2009; Coyle & Van Susteren, 2012).

It is also important to remember that while this study was focused on only some of the indirect psychological impacts of climate change, the full impact will be felt in countless ways, including direct trauma following "natural" disasters related to climate change, social unrest and widening inequality exacerbated by dwindling resources, social upheaval in the wake of resettlement or violence related to climate change (the current refugee crisis in Europe and the

Middle East is just one example of this), and an increased need for support for veterans and their families (as global violence and war has been projected to increase as climate change worsens) (Swim et al., 2009; Coyle & Van Susteren, 2012; Wendle, 2015). Social Workers and others in the field will likely be called upon to respond to these and other effects of climate change, and it is vital that those studying and working in the field of mental health begin preparing for the new and myriad roles and responsibilities that climate change will likely create.

Moreover, as Park and Miller (2006) argue in their article on ‘The Social Ecology of Hurricane Katrina,’ it is critical that we begin to think about and plan for these events and changes ahead of time using a social ecology lens that keeps a critical and ever watchful eye on the social forces that determine who is affected by “natural” disasters and events and how. As they note,

if responders only focus on the immediate needs of people, and attempt to respond to all persons and communities in a neutral fashion, the economic and social inequities and disparities we have described will not only be left undisturbed, but further reinforced. The maxim that the ‘personal is the political,’ while always true is particularly salient when responding to ‘natural’ disasters. (Park & Miller, 2006, p. 18)

However, as we see in the responses in this study, climate change is *already* affecting some individuals in indirect ways, and therapists and other mental health providers need to start thinking critically about how they can best respond to the kinds of distress that participants in Section 2 of the study describe. Particularly given the fact that we can fairly accurately predict at this point that conversations about climate change in therapy will become more common in the coming years, we must start thinking now about how this can best be addressed in the therapeutic setting. (Swim et al., 2009; Coyle & Van Susteren, 2012)

**Addressing the myth of neutrality.** One of things that stuck out in the responses to Section 2 was the ways in which conversations about climate change often arose from comments about the weather. Often the topic of weather arises casually during small talk at the beginning of the session, and typically these preliminary conversations provide an opportunity for therapists and clients to build rapport over commonly shared but fairly benign topics. Weather gets raised in the same way that a recent sporting event, an uptick in traffic, or nearby construction work might be discussed. Weather is something that everyone experiences together, and thus it is generally considered a safe and neutral topic.

In recent years, however, increased media coverage around climate change has raised public awareness of the connection between global warming and abnormalities in weather patterns and seasons, so that an offhand comment about an unseasonably warm day, for example, is frequently loaded with greater significance, and this has emotional implications for some clients. As one participant noted, “Often these are “doorknob moments” and I feel caught off-guard and uncertain about the most ethical and appropriate way to proceed.” The anxiety articulated by this participant highlights an issue that I believe is critical to the field as a whole.

Although I made a point to specify the distinction between “passing comments” and “emotionally significant conversations” about climate change in the survey, the responses in Section 2 in some ways blurred that distinction, raising the question: what if the thing that stands between the two types of responses is not a client’s emotional state or form of communication, but the decision on the part of the therapist to follow up on a client’s comments? If a client makes a statement that expresses some degree of emotional distress about the weather to a clinician who is skeptical of or unconcerned about climate change, that statement may be dismissed as a passing comment and ignored, whereas if that client sees another clinician who is

also distressed about climate change or who thinks, as one participant did, that “bringing social and cultural issues into sessions can be highly valuable, and often reveals much about the person and can also deepen the therapeutic relationship,” then that same expression of emotional distress would likely be explored in the context of an emotionally significant discussion about climate change. Indeed, the impulse to either follow up or move on from a comment can vary for just one clinician depending on their emotional reaction at the time. As one participant put it,

I do believe my own fears associated with climate change may influence the conversation including potentially maintaining a discussion on what might have just been a passing comment or alternatively not focusing on the fears for fear of inciting my own anxiety.

When asked how their own feelings about climate change affected their response or assessment, one participant noted: “Unfortunately I find myself internally minimizing their fears. I am working on being more neutral.” While it is good that they are being reflective and thinking critically about their work, the question of whether that participant, or any of us for that matter, can actually achieve neutrality is another matter altogether and one that I think is significant to this topic. Although the field of psychology has slowly moved away from the flawed premise of the therapist-as-blank-slate ideal, we can find its flame still flickering in the idea of ‘meeting the client where they are at’ – an idea that is often central to the practice of many clinical Social Workers and other therapists. As one participant put it, “In keeping with one of the basics of our field of ‘starting where the client is’ I would opt for a client centered approach in my intervention and address client's priorities.”

But climate change (and the way that our society does or does not communicate about it) implicates both client and therapist alike. And indeed, findings from this study show that, for many of the therapists who participated (62%), expressions of anxiety, fear and grief made by

clients about climate change stirred up similar emotions in themselves, so much so that quite a few discussed the ways in which these conversations actually affected the quality of the therapeutic relationship itself. Yet a number of the participants (29%) made a point of saying that they were careful to not let their own feelings or opinions about climate change affect how they responded to their client's stated emotions. It may well be that these participants are all particularly skilled at understanding and working through countertransference and parallel processes, but it is also important to note that, in a society that has yet to collectively confront the realities of climate change, in a field which, according to many of the participants of this study, does not adequately address the issue of climate change, in a culture which tends to minimize emotional connections to the natural world, and with an issue that often triggers existential anxieties and feelings of despair, it is likely that many, if not most, therapists bring a great deal more bias into such conversations than they are aware of. In 'The myth of neutrality', Orange, Atwood and Stolorow (1997) state

the myth of the neutral analyst, with roots extending back through a hundred years of psychoanalytic history, continues to operate as a deeply embedded organizing principle, powerfully shaping analysts' perceptions of the analytic encounter and obscuring the intersubjective nature of the analytic process. In countless discussions with colleagues, students and supervisees we have found that *analysts and therapists are especially prone to make claims of neutrality when their patients' transference attributions threaten essential features of their sense of self* [emphasis added]. (p. 36)

There is no way of knowing how climate change will affect us in the decades to come (particularly since so much depends on how and how quickly we respond in the present), but there is no question that it will bring significant changes to our everyday existence (Pachauri,



R.K. et al., 2014). As we saw from Randall (2009), even relatively small adaptations (in her example, choosing to take the bus instead of driving) can actually threaten one's sense of self, and as we see in the participants' descriptions, the issues that come up in discussions about climate change are often far more loaded, and at times terrifying, than simply changing one's commute. If we know that the therapist is never neutral, and we know that climate change is one of the few issues that a client could bring up that *necessarily* affects both client and clinician, then we in the field of mental health need to begin addressing our own emotional reactions and processes in response to climate change so that we can better address our clients' needs. This includes recognizing the ways in which we partake in the collective denial and "mental gymnastics" that "many of us engage in in order to avert the full psychological impact of the destruction of the natural world" (Kidner, 2007, p. 140) - gymnastics that are often on full display when we talk casually or half-jokingly (as one participant noted) about a topic that has much deeper emotional implications for both the client and the clinician. This does not mean that every conversation about the weather needs to be a serious one, but it means we need to be aware of the fact that it could be.

**Addressing politics in therapy.** In addition to the weather, many participants in Section 2 noted that conversations about climate change either sprang from or lead into conversations about politics. Although Social Work emphasizes a person-in-environment perspective that should, in theory, include the political context in which a client lives, politics and political analysis are often a strikingly absent from psychotherapy. As one participant in Section 2 of the study put it, "I'm careful to not have to session revolve around political conversation or concerns."

The problem is that, as Park and Miller (2006) noted, "The maxim that the 'personal is

the political,’ while always true is particularly salient when responding to ‘natural’ disasters” (p. 18). Climate change is distressing for many reasons, and quite a few of those reasons are directly related to the fact that it is not a natural phenomenon and has significant political roots and implications. While a number of participants seemed to see their clients’ distress around climate change as a defense mechanism and a means of either avoiding or expressing deeper feelings about issues that were more personal and apolitical, it seems from many of the descriptions in Section 2 that distress around climate change is also deeply tied to intense feelings of political disempowerment, disenfranchisement, and alienation that clients experience in other realms as well. To ignore the political aspects of these clients’ concerns would be to ignore a central emotional experience of political hopelessness or powerlessness, one that might actually, over time, bleed into their intrapsychic states. In other words, a lifetime of socioeconomic and political disenfranchisement and powerlessness in the face of institutions upon which one must rely in order to survive could eventually shape how one approaches and experiences other more personal issues and relationships. A person-in-environment perspective should not just recognize the way that a client interacts with their environment, but also how their environment – including the political environment - impacts their lived experience and their sense of self.

Moreover, to ignore the political aspects of a client’s concerns can also serve to further disempower them. A recent New York Times editorial spoke to this very issue, noting that many therapists, having been

trained not to discuss political issues in the consulting room, are part of the problem, implicitly reinforcing false assumptions about personal responsibility, isolation and the social status quo. If the patient describes a nearly unbearable work situation, the therapist will tend to focus on the nature of the patient’s response to the situation, implicitly

treating the situation itself as unchangeable, a fact of life. But an untenable or unjust environment is not always just a fact of life, and therapists need to consider how to talk about that explicitly. (Brouillette, 2016)

To be clear, not all of the participants in Section 2 were opposed to engaging in political conversations with their participants. Several stated that they were happy when clients talked about larger geopolitical issues, with one noting that

I believe that it'd be a big mistake to assume that a social issue and its attendant distress is always a manifestation of something more personal and/or domestic-- I try to hold the possibility that both could be happening at the same time, and are equally valid.

This “both/and” stance seems particularly vital with an issue as large and complex as climate change. For example, such conversations may in one instance lead a client to recognize the depth of their annihilation anxiety and how this is tied to unhealthy patterns of relating that stem from early childhood, but it may also lead a client to recognize that their general sense of powerlessness in the world leads them to self-destructive behaviors and could instead be channeled more healthily into community engagement or political activism that would likely increase their sense of self efficacy. As Brouillette (2016) noted,

Too often, when the world is messed up for political reasons, therapists are silent. Instead, the therapist should acknowledge that fact, be supportive of the patient, and discuss the problem. It is inherently therapeutic to help a person understand the injustice of his predicament, reflect on the question of his own agency, and take whatever action he sees fit.

In a sense then, one cannot truly ‘meet a client where they are at’ without recognizing and engaging in the political underpinnings of their emotional and social location. To ignore or set

aside these elements would be to cut off the possibility that health can be arrived at and achieved in and through one's political context. This may be especially true in the case of climate change, where the consequence of political inaction is the opposite of health, it is crisis and suffering.

## **Conclusion**

The purpose of this study was to explore how mental health clinicians receive and respond to comments or concerns raised by clients about climate change in the therapeutic setting, and to get a sense of how and how often the subject comes up. Through a mixed-methods online survey, the study gathered quantitative data from 160 therapists and gathered qualitative data from 35 therapists from across the US. The findings indicate that climate change comes up more often in the form of passing comments than emotionally significant conversations, but that those conversations are happening between some therapists and their clients. Moreover, the findings suggest that many therapists who experience their clients' distress around climate change do not feel adequately trained in this area and experience a significant amount of emotion themselves when the subject comes up.

Given the fact that the effects of climate change are expected to increase in their scope of impact and severity in the coming years, and given the fact that mental health clients may be particularly vulnerable to psychological distress as well as other impacts of climate change, it is likely that therapists will see an increase in these kinds of conversations in the future. Graduate institutions need to begin incorporating issues related to climate change into their curriculum, and that, similarly, mental health agencies and practitioners need to begin thinking and talking about how to create space for these conversations and how to best respond to climate change related distress when they do occur.

It is also vital for clinicians to recognize that their own emotional reactions to climate change play a significant role in how they respond to their clients when the subject comes up, and that this in turn affects what is or is not talked about in therapy. Therapists should work to increase their awareness of the emotions that come up, both for themselves and their clients, when the topic arises. Finally, clinicians should give more consideration to the ways in which they do or do not make a space in their practice for conversations about climate change that focus on how their clients experience themselves as political actors in the world, as these kinds of conversation may allow for both therapist and client to explore the ways that a client's sociopolitical experiences shape and inform their sense of self and how they interact with the world around them.

The psychological impacts of climate change are projected to be immense and varied, and indirect emotional distress about climate change as a phenomenon is just one of many ways that anthropogenic global warming can affect human beings. However, as the findings of this study suggest, the issue is a complicated one that must be researched further in order to provide proper treatment to vulnerable members of the population. It is my hope that this preliminary exploratory study will be one among many in the years to come.

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## APPENDIX A

### Human Subjects Review Approval Letters

#### Initial Approval Letter



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

February 8, 2016

Lily Seaman

Dear Seaman,

You did a very nice job on your revisions. 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.

Congratulations and our best wishes on your interesting study.

Sincerely,

A handwritten signature in cursive script, appearing to read "Elaine Kersten".

Elaine Kersten, Ed.D.  
Co-Chair, Human Subjects Review Committee

CC: Rob Eschmann, Research Advisor



**Amendment 1 Approval Letter**



---

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

February 16, 2016

Lily Seaman

Dear Lily,

I have reviewed your amendment and it looks fine. The amendment to your study is therefore approved. Thank you and best of luck with your project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Elaine Kersten'.

Elaine Kersten, Ed.D.  
Co-Chair, Human Subjects Review Committee

CC: Rob Eschmann, Research Advisor

**Amendment 2 Approval Letter**



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

February 18, 2016

Lily Seaman

Dear Lily,

I have reviewed your amendment and it looks fine. The amendment to your study is therefore approved. Thank you and best of luck with your project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Elaine Kersten'.

Elaine Kersten, Ed.D.  
Co-Chair, Human Subjects Review Committee

CC: Rob Eschmann, Research Advisor

**Amendment 3 Approval Letter**



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

February 25, 2016

Lily Seaman

Dear Lily,

I have reviewed your amendment and it looks fine. The amendment to your study is therefore approved. Thank you and best of luck with your project.

Sincerely,

A handwritten signature in black ink, appearing to read 'Elaine Kersten', written over a light blue horizontal line.

Elaine Kersten, Ed.D.  
Co-Chair, Human Subjects Review Committee

CC: Rob Eschmann, Research Advisor

APPENDIX B  
Recruitment flyer, emails and social media posts

Recruitment Flyer

**PSYCHOLOGICAL IMPACTS  
OF CLIMATE CHANGE**

**ONLINE RESEARCH SURVEY**

**Are you a Therapist or Mental Health  
Clinician working with adults in the US?  
If so, please take our short survey – we  
want to hear from you!**

**About the Survey:**

Although the subject of **climate change** has the potential to cause some people significant distress, very little research has been done on how or when this topic gets raised by clients in the therapeutic setting, or how clinicians respond. **Whether you have had multiple experiences talking about climate change with your clients or none at all, your opinion is invaluable!**

Take the survey at [https://smithcollege.qualtrics.com/SE/?SID=SV\\_ahLIVzEv3tlrsk5](https://smithcollege.qualtrics.com/SE/?SID=SV_ahLIVzEv3tlrsk5)

This study has been reviewed and approved by the Smith College School for Social Work  
Human Subjects Review Board Committee

## Sample email request

Dear friends and colleagues,

As many of you probably know, I am a graduate student at Smith College School for Social Work and working to get my Master's in Clinical Social Work. I am conducting research for my master's thesis on the psychological impacts of climate change and I'm writing to ask for your help recruiting participants for my study. If you or someone you know fits the description below, please consider taking part (and sharing this invitation widely)!

**Participation requirements:** The survey (see link below) is for mental health clinicians, including Social Workers, Psychologists, Masters in Counseling, Marriage and Family Counselors, and others in the mental health field (including graduate students) who work in the US and provide mental health treatment to adults in a clinical setting (either inpatient or outpatient). My thesis concerns the psychological impacts of climate change and how (if at all) this is addressed in the therapeutic setting. Regardless of your level of experience discussing climate change with your clients, your feedback is important. I am hoping to get as many participants and diverse responses as possible, so as long as you meet the basic criteria, I want to hear from you!

**Survey design:** The survey consists of two parts and the initial set of questions should not take more than 5 minutes to fill out. Depending on your responses, you may be invited to participate in a second set of questions, but you are not obligated to complete the survey and can exit it at any time. The survey is anonymous and confidential. This study protocol has been reviewed and approved by the **Smith College School for Social Work Human Subjects Review Committee (HSRC)**

**If you think you may be eligible, please [click here](#) to begin the survey!**

Thank you so much for your help. If you have any questions or concerns about the study, please feel free to contact me [lseaman@Smith.edu](mailto:lseaman@Smith.edu) or (XXX) XXX-XXXX. I'm really excited about this research and would be so grateful for your help. Please share this invitation widely to anyone who you think might be eligible!

Sincerely yours,

Lily Seaman  
MSW Candidate '16  
Smith College School for Social Work  
[lseaman@Smith.edu](mailto:lseaman@Smith.edu)

survey link: [https://smithcollege.qualtrics.com/SE/?SID=SV\\_ahLIVzEv3tlrsk5](https://smithcollege.qualtrics.com/SE/?SID=SV_ahLIVzEv3tlrsk5)



**Sample email forward request:**

Friends,

I'm writing to ask for you for a quick but important favor. I'm doing a research study for my Masters and I'm writing to see if you would help me out by sharing this survey invitation with anyone you know who might be eligible.

I am surveying mental health clinicians (as well as MH grad students) who work with adults in the US. Some of you may be eligible yourselves, in which case I really hope you will take a moment and take the survey! **If you aren't a mental health clinician but you know someone who is, please pass this on to them!** It would be a huge favor. The formal invitation is below and a flyer is attached.

Thank you in advance!!  
Lily

-----  
Dear friends and colleagues,

As many of you probably know, I am a graduate student at Smith College School for Social Work and working to get my Master's in Clinical Social Work. I am conducting research for my master's thesis on the psychological impacts of climate change and I'm writing to ask for your help recruiting participants for my study. If you or someone you know fits the description below, please consider taking part (and sharing this invitation widely)!

**Participation requirements:** The survey (see link below) is for mental health clinicians, including Social Workers, Psychologists, Masters in Counseling, Marriage and Family Counselors, and others in the mental health field (including graduate students) who work in the US and provide mental health treatment to adults in a clinical setting (either inpatient or outpatient). My thesis concerns the psychological impacts of climate change and how (if at all) this is addressed in the therapeutic setting. Regardless of your level of experience discussing climate change with your clients, your feedback is important. I am hoping to get as many participants and diverse responses as possible, so as long as you meet the basic criteria, I want to hear from you!

**Survey design:** The survey consists of two parts and the initial set of questions should not take more than 5 minutes to fill out. Depending on your responses, you may be invited to participate in a second set of questions, but you are not obligated to complete the survey and can exit it at any time. The survey is anonymous and confidential. This study protocol has been reviewed and approved by the **Smith College School for Social Work Human Subjects Review Committee (HSRC)**

**If you think you may be eligible, please [click here](#) to begin the survey!**

Thank you so much for your help. If you have any questions or concerns about the study, please feel free to contact me lseaman@Smith.edu or (XXX) XXX-XXXX. I'm really excited about this research and would be so grateful for your help. Please share this invitation widely to anyone who you think might be eligible!

Sincerely yours,

Lily Seaman  
MSW Candidate '16  
Smith College School for Social Work  
lseaman@Smith.edu

survey link: [https://smithcollege.qualtrics.com/SE/?SID=SV\\_ahLIVzEv3tIrsk5](https://smithcollege.qualtrics.com/SE/?SID=SV_ahLIVzEv3tIrsk5)



### **Sample Facebook/LinkedIn post:**

Are you a clinical mental health professional working with an adult population in the US?

If so, please consider filling out the survey below! I am conducting research on the psychological impacts of climate change and how (if at all) this is addressed in the therapeutic setting. Regardless of your level of experience discussing climate change with your clients, your feedback is important.

The initial set of questions should not take more than 5 minutes to fill out. Depending on your responses, you may be invited to participate in a second set of questions, but you are not obligated to complete the survey and can exit it at any time. The data gathered in this study

will be used to complete my Master's in Social Work (MSW). This study protocol has been reviewed and approved by the Smith College School for Social Work Human Subjects Review Committee (HSRC). If you have any questions or concerns about the study, please feel free to contact me at [lseaman@smith.edu](mailto:lseaman@smith.edu) or (XXX) XXX-XXXX.

If you think you may be eligible, please click on the link in the comments below or go to <https://smithcollege.qualtrics.com/SE/...> to begin the survey!

Thank you in advance for your help.

Sincerely yours,  
Lily Seaman  
MSW Candidate '16  
Smith College School for Social Work



### Sample Facebook/LinkedIn re-post request

Dear Friends and Colleagues: Please help me complete my Master's thesis by sharing this survey invitation and asking your friends to do the same!

-----

Are you a clinical mental health professional working with an adult population in the US?

If so, please consider filling out the survey below! I am conducting research on the psychological impacts of climate change and how (if at all) this is addressed in the therapeutic setting. Regardless of your level of experience discussing climate change with your clients, your feedback is important.

The initial set of questions should not take more than 5 minutes to fill out. Depending on your responses, you may be invited to participate in a second set of questions, but you are not obligated to complete the survey and can exit it at any time. The data gathered in this study will be used to complete my Master's in Social Work (MSW). This study protocol has been reviewed and approved by the Smith College School for Social Work Human Subjects Review Committee (HSRC). If you have any questions or concerns about the study, please feel free to contact me at [lseaman@smith.edu](mailto:lseaman@smith.edu) or (XXX) XXX-XXXX.



If you think you may be eligible, please click on the link in the comments below or go to <https://smithcollege.qualtrics.com/SE/...> to begin the survey!

Thank you in advance for your help.

Sincerely yours,  
Lily Seaman  
MSW Candidate '16  
Smith College School for Social Work



## APPENDIX C

### Survey on Qualtrics.com

6/17/2016

Qualtrics Survey Software

#### Survey on the Psychological Impacts of Climate Change

##### Welcome!

The purpose of this survey is to gather information about how and how often the subject of climate change is raised by clients in the therapeutic setting and how clinicians interpret and respond to this subject. You do not need to have ever discussed climate change with your clients to take this survey. In order to participate, you must meet the following criteria:

Are you able to read and write in english?

Yes

No

Do you have access to a computer and the internet and do you have the computer skills necessary to navigate an online survey?

Yes

No

Have you completed (or are you currently enrolled in) graduate or postgraduate training to practice psychotherapy?

Yes

No

Are you currently practicing outpatient or inpatient psychotherapy in the United States or have done so within the last 5 years?

Yes

No

Do you work with an adult client population?

Yes

<https://seniorthcollege.qualtrics.com/ControlPanel/Ajax.php?action=GetSurveyPrintPreview>

115

## Disqualification

Thank you for your time and interest in this study. Unfortunately, your answers to one or more of the previous questions indicate that you do not meet the eligibility criteria for this study.

Please share the survey with anyone you believe might be eligible by sending them the link below via email or social media.

[Survey on the Psychological Impacts of Climate Change](#)

To exit, simply close the browser window.

## Please review the following statement of informed consent:

### Consent to Participate in a Research Study Smith College School for Social Work • Northampton, MA

.....  
**Title of Study:** *Climate change on the couch: How mental health clinicians understand and respond to the indirect psychological impacts of climate change in the therapeutic setting*

**Investigator(s):** *Lily Seaman, MSW Candidate, Smith College School for Social Work, (413) 341-6721, lseaman@smith.edu*  
.....

#### Introduction

- You are being asked to be in a research study on the psychological impacts of climate change.
- You were selected as a possible participant because you identified yourself as someone who 1) has completed graduate or postgraduate training to practice psychotherapy; 2) currently practices outpatient or inpatient psychotherapy in the U.S.; and 3) works with an adult population.
- We ask that you read this form and ask any questions that you may have before agreeing to be in the study.

**Purpose of Study**

- The purpose of the study is to gather information about how and how often the subject of climate change is raised by clients in the therapeutic setting and how clinicians interpret and respond to this subject.
- This study is being conducted as a research requirement for my master's in social work degree.
- Ultimately, this research may be published or presented at professional conferences.

**Risks/Discomforts of Being in this Study**

- The risks of participation in this study are expected to be minimal, as the questions in this survey will pertain to your clients' emotional reactions to climate change and not your own.
- However, climate change affects all who live on this planet, including the participants in this study and it is possible that thinking about the changes and losses that we may face as a population and as individuals could produce feelings of emotional discomfort or distress for some participants. You can learn more about how to cope with climate-change-related distress at [http://www.psychology.org.au/publications/ti\\_sheets/climate/](http://www.psychology.org.au/publications/ti_sheets/climate/).

**Benefits of Being in the Study**

- The benefits of participation include both personal gains (as studies have shown that thinking and talking about the psychological impacts of climate change can improve feelings of self-efficacy and commitment to environmental causes) and professional development (by encouraging you to contemplate the psychological impact of climate change on your clients, as research indicates that there will be an increase in the number of mental health consumers experiencing climate-change-related distress in the years to come).
- The benefit to social work/society is that this study will help to fill a significant gap in the literature on the indirect psychological impacts of climate change. Although the number of Americans who experience distress related to climate change is projected to increase considerably in the future, and although vulnerable groups include those with pre-existing mental health conditions, the body of literature related to how climate-change-related distress is dealt with in the context of psychotherapy is very small and there is currently no empirical research available on how and how often climate change is discussed in the therapeutic setting. As more and more clinicians experience clients struggling with the ramifications of climate change, it will be of benefit to the field to provide an understanding of how others have worked with such clients already. Moreover, while the field of

psychology has begun formally addressing the psychological ramifications of climate change, the field of social work has been relatively silent on this matter, and given social work's unique perspective, it will be a benefit to the field to begin addressing this issue head on.

### **Confidentiality**

- This study is anonymous. Qualtrics software does not collect any identifying information or data from those who take part in this survey and ensures that I as the researcher will have no knowledge of who participants are.
- Participants are strongly discouraged from including any identifying information and any information that could be used to identify participants or their clients will be removed prior to publication.

### **Payments/gift**

- You will not receive any financial payment for your participation.

### **Right to Refuse or Withdraw**

- The decision to participate in this study is entirely up to you. You may refuse to take part in either section of the study at any time before submission without affecting your relationship with the researchers of this study or Smith College. Your decision to refuse will not result in any loss of benefits (including access to services) to which you are otherwise entitled. You have the right not to answer any single question, as well as to withdraw completely up to the point that you click "submit". Once you have submitted your responses to sections 1 or 2 of the survey, you will be unable to withdraw from the study, as the anonymous nature will prevent me from identifying and deleting your responses.

### **Right to Ask Questions and Report Concerns**

- You have the right to ask questions about this research study and to have those questions answered by me before, during or after the research. If you have any further questions about the study, at any time feel free to contact me, Lily Seaman, at lseaman@smith.edu or by telephone at (413) 341-6721. If you would like a summary of the study results, one will be sent to you once the study is completed. If you have any other concerns about your rights as a research participant, or if you have any problems as a result of your participation, you may contact the Chair of the Smith College School for Social Work Human Subjects Committee at (413) 585-7974.

## Consent

**By selecting "I agree" below, you are indicating that you have decided to volunteer as a research participant for this study and that you have read and understood the information provided above. Please print a copy of this page for your records.**

I AGREE

I Disagree

## Disqualification

Thank you for your time and interest in this study. Unfortunately, your answers to one or more of the previous questions indicate that you do not meet the eligibility criteria for this study.

Please share the survey with anyone you believe might be eligible by sending them the link below via email or social media.

[Survey on the Psychological Impacts of Climate Change](#)

To exit, simply close the browser window.

## Demographic and Background Information

1. Please select the field in which you received (or are working to receive) your degree:

Psychology

Social Work

Marriage and Family Therapy

Mental Health Counseling

Psychiatric Nursing

Other:

2. How long have you been practicing psychotherapy?

1 - 2 years

3 - 5 years

6 - 10 years

11+ years

3. Please describe the clinical settings in which you currently work:

Private Practice

Community Mental Health Agency

Psychiatric Hospital or Institution

Medical Office / Community Health Clinic

College or University Counseling

Social Service Agency

Other:

4. Please choose the geographic setting that best describes the location in which you work:

Urban

Suburban

Rural

5. Please select the state and county in which you currently work:

State:

County

### Clinical Experiences: "Passing Comments" about Climate Change

**What is Climate Change?** For the purposes of this study, the term "climate change" refers to the long-term climatological changes resulting from the increase in global temperature caused directly or indirectly by human activity. These changes include increased CO2 emissions, melting polar ice caps, rising sea levels, acidification of



ocean waters, extreme weather patterns, prolonged heat waves, drought, and animal and plant extinction (Pachauri, R.K. et al., 2014).

**In the following 3 questions you will be asked about your clinical experiences when clients mention climate change in passing.** Some examples of a "passing comment" about climate change might include:

- A client who says "The world's going to end soon anyway!" before changing the subject;
- A client who chides themselves for being environmentally wasteful;
- A client who expresses vague annoyance at environmental campaigns or activists

Here we are differentiating a "passing comment" from an "emotionally significant conversation" about climate change. A "passing comment" would likely be one in which the client speaks casually and does not appear to be seeking a sustained conversation on the topic.

1. In your clinical experience, how often have you had a client mention climate change in passing during a therapy session?

- Never
- Rarely
- Sometimes
- Often
- Very Frequently

2. In your clinical experience, how many clients have mentioned climate change in passing during a session?

- 0
- 1 - 2
- 3 - 6
- 7 - 12
- 13 +

3. Over the course of time, have you seen the rate of passing comments about climate change...

- Increase



- Decrease
- Stay the same
- Unsure

## Clinical Experiences: "Emotionally Significant Conversations" about Climate Change

**What is Climate Change?** For the purposes of this study, the term "climate change" refers to the long-term climatological changes resulting from the increase in global temperature caused directly or indirectly by human activity. These changes include increased CO2 emissions, melting polar ice caps, rising sea levels, acidification of ocean waters, extreme weather patterns, prolonged heat waves, drought, and animal and plant extinction (Pachauri, R.K. et al., 2014).

In the following 4 questions you will be asked about your clinical experiences with clients who discuss climate change (either briefly or at length) in an emotionally significant way. Here we are differentiating an "emotionally significant conversation" about climate change from a casual "passing comment"; in the latter instance the client likely would not appear to be in significant distress or to be seeking out a sustained conversation, while in the former instance a client might appear to need or desire a meaningful exchange on the subject and would likely convey that the topic is of some emotional significance to them. Psychological distress around climate change is not required for the exchange to be considered an "emotionally significant conversation" but is likely.

4. In your clinical experience, how often have had a client discuss climate change with you (either briefly or at length) in an emotionally significant way?

- Never
- Rarely
- Sometimes
- Often
- Very Frequently

5. In your practice, how many clients have discussed (either briefly or at length) climate change in an emotionally significant way?

- 0
- 1 - 2

3 - 6

7 - 12

13 +

6. Over the course of time, have you seen the rate of emotionally significant discussions about climate change...

Increase

Decrease

Stay the same

Unsure

7. Please select the most common overall emotion expressed during these discussions:

Anxiety/Fear

Grief/Sadness

Anger/Frustration

Apathy/Ambivalence

Guilt

 Other:

Unsure

## Personal and Professional Experiences Related to Climate Change

**What is Climate Change?** For the purposes of this study, the term "climate change" refers to the long-term climatological changes resulting from the increase in global temperature caused directly or indirectly by human activity. These changes include increased CO<sub>2</sub> emissions, melting polar ice caps, rising sea levels, acidification of ocean waters, extreme weather patterns, prolonged heat waves, drought, and animal and plant extinction (Pachauri, R.K. et al., 2014).

8. How would you rate your own level of concern about climate change:

Optimistic

Not Concerned  
Somewhat Concerned  
Concerned  
Very Concerned  
Alarmed

9. Do you consider climate change to be an important or significant issue for you as a clinician or for the fields of Social Work and Psychology as a whole?

Climate change is relevant to my clinical work as well as the field as a whole.  
Climate change is relevant to my field in general but not to my clinical work specifically.  
Climate change is relevant to my clinical work but not to my field in general.  
Climate change is not relevant to my clinical work or my field as a whole.  
Undecided  
No Opinion

10. Do you have any significant educational, training, or practice experience with ecopsychology, ecotherapy, wilderness therapy, or related fields/modalities?

Yes  
No

**Please click the "SUBMIT" button below when you are ready to complete the survey and submit your responses.**

SUBMIT

Thank you for completing Section I of this survey!

**Based on your responses, you are being invited to participate in Section II of the survey.**

In this section, you will be asked a series of open-ended questions and provided space to discuss your responses in as little or as much detail as you wish, with the hopes that you will spend anywhere from 15 to 25 minutes on the section. Your feedback is invaluable - thank you in advance for your participation. Please press "ENTER" to begin Section II, or, if you decide not to participate, you can press the "No Thanks" button or simply close your browser window.

ENTER  
No Thanks

### Thank You!

Thank you for participating in this study! Your time and input are much appreciated.

Please feel free to share the survey with anyone you believe might be eligible by sending them the link below via email or social media.

[Survey on the Psychological Impacts of Climate Change](#)

To exit, simply close the browser window.

## Clinical Experiences and Opinions on the Psychological Impacts of Climate Change

**What is Climate Change?** For the purposes of this study, the term "climate change" refers to the long-term climatological changes resulting from the increase in global temperature caused directly or indirectly by human activity. These changes include increased CO2 emissions, melting polar ice caps, rising sea levels, acidification of ocean waters, extreme weather patterns, prolonged heat waves, drought, and animal and plant extinction (Pachauri, R.K. et al., 2014).

In the previous you indicated that you have had at least one clinical experience with a client who has brought up the subject of climate change in an emotionally significant way in the therapeutic setting. **The following questions are intended to gather more information about that experience.** Questions are open-ended and text boxes are large, so please feel free to provide as much or as little detail as you feel comfortable (as a reminder, please do not include any identifying information about the client). If you have had multiple clients who have brought up climate change, feel free to speak about any or all of them.

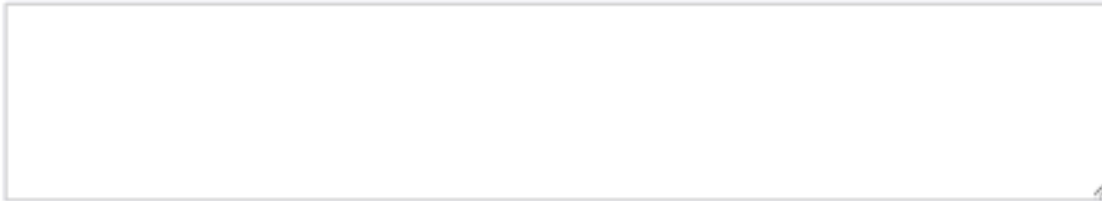
1. Please briefly describe your client's reaction to climate change and the nature of the interaction in as

much or as little detail as you would like. (Relevant details could include (a) how the conversation came about and what was said, (b) whether this has come up repeatedly or just once, (c) how you responded, or something else.)

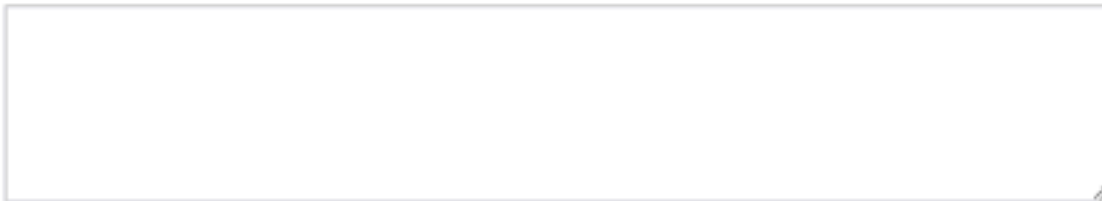
2. Please briefly provide any relevant information about the client(s) in question (relevant details might include demographic information, diagnosis, character traits, etc.)

3. What is your clinical assessment of your client's response(s) to climate change? (Relevant details could include how their response relates to their diagnosis, how their response relates to their personality, or something else.)

4. Please comment on whether you consider your client's emotional response to climate change to be healthy/appropriate or not, and how you made this assessment:



5. Have you considered your client's emotional response to climate change through the lens of psychodynamic theory? If so, what is your theoretical interpretation of their response?



6. How have you responded to your client when they have brought up the subject of climate change?



7. When the subject of climate change has come up in the therapeutic session, what has been your own internal emotional reaction? How, if at all, have your own feelings about climate change affected your response or assessment?



8. Earlier, you were asked whether you have had clients make passing references to climate change. If this has happened during your clinical work, how have you responded?

9. Do you feel that your training and/or clinical experience has prepared you to respond to the psychological impacts of climate change?

10. During the course of treatment, have you seen any reduction in your client's level of distress around climate change and/or increase in their level of insight about these emotions? If so, what treatments or modalities have proven the most effective?

Please click the "SUBMIT" button below when you are ready to complete the survey and submit your responses.

**SUBMIT**

**Thank You!**

Thank you for participating in this study! Your time and input are much appreciated.

Please feel free to share the survey with anyone you believe might be eligible by sending them the link below via email or social media.

[Survey on the Psychological Impacts of Climate Change](#)

To exit, simply close the browser window.

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