Foreword

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“People acquire phobias,” evolutionary biologist E.O. Wilson observed, to “abrupt and intractable aversions, to the objects and circumstances that threaten humanity in natural environments” (The Diversity of Life 351). This often overlooked observation, conceptualized by an evolutionary biologist whose canon launched the Western corpus of biodiversity theories, locates an important problem unique to humanity’s current climate change moment—our phobia of nature.

How many of us have jumped with fear at the sight of a nearby hairy spider, become alarmed by a slithering snake, or panicked at the clap of a lightning bolt? Why have we conditioned ourselves, as 21st century hominids, to dread the Earth’s daily descent into darkness, avoiding night by flipping the infrastructural switch of artificial light? In modernity’s modern moment, how has our all-consuming fear of nature created the collective human condition that Simon C. Estok terms the trauma of “ecophobia”?

The fear of nature, according to the Mayo Clinic, is a condition that exists in its own category as a specific psychological phobia. Specific phobias, claim Lisa M. Shin and Israel Liberson, “are marked by excessive, unreasonable and persistent fear of specific objects or situations” (179). Estok’s The Ecophobia Hypothesis registers these specific phobic instances of irrational fear and chronic aversion to nature whose cumulative effects have abetted the now irreversible course of global planetary warming. This fear of nature, Estok claims, has spurred a maladaptive “antagonism between humans and their environments,” the seriousness of which is evidenced by our human legacy—the Anthropocene (1).

Estok begins his theorization of ecophobia by extending Serenella Iovino and Serpil Oppermann’s foundational work on material ecocriticisms: in short, he claims that ecophobia is undergirded by material and genetic components. The genesis for his hypothesis derives from Wilson’s 1984 theory of biophilia, defined as “the innate tendency to focus on life and lifelike processes” (Biophilia 1). The biophilic impulse, Wilson suggests, assumes a human “urge to affiliate with other forms of life” (85). The incubi of this theory, arguing an innate human conservation ethic that is affiliative with the natural environment, followed the advent of the American environmental movement led by biologist Rachel Carson’s canonic Silent Spring.
And yet, in our 21st century moment, Estok reminds us that the idealism of Wilson’s beloved biophilia notion has not yet come to pass in practice; within this sober reckoning, we must acknowledge that over the history of humanity, we have taken a collective wrong turn away from terrifying nature, irrevocably destroying Earth systems. Our fears and aversions to what Estok deems nature’s dynamic, self-sufficient, and oftentimes violent “biotic communities” have disrupted our inherited biological drives and adaptive survival strategies. The modern human aversion to nature has, as Estok notes in his final chapter on garbage, conditioned our defenses to avoid the natural environment by aggressively erecting global and off-planet infrastructures of waste (75).

What Wilson originally termed our “affiliation” with nature, today comprises what Estok describes in Chapter 4 as a type of “hollow ecology” or pseudo-union with Earth’s animals, plants, and minerals (116). And Estok makes us aware, in his second and third chapters, how this pseudo-union with nature is mediated through a cultural infrastructure of digital images that rapidly traverse the globe, creating enmeshments between terror, tragedy, and ecophobia. The ecophobic condition, he importantly claims, describes how we mask our relationships with rights-deprived nonhuman animals at home; in zoos; or, as he describes in his “Animals, Ecophobia, and Food” chapter, as meals. Evidence of ecophobia is also present when we engineer agrochemical practices that genetically alter plants while depositing toxic pollution into the Earth’s waterways and soils. And it certainly exists in our maladaptive relationship to minerals: humanity, in both neoliberal and economically developing nations, has formed surprisingly close associations with minerals by first gutting them from Earth’s crust and then appropriating them as commodity class adornments such as jewelry, which begs the question how do we make luxury taboo? As the prudent Celia observes in Shakespeare’s As You Like It, “the little foolery that wise men have makes a great show.”

This tragic “show”—the Anthropocene—results from the human disavowal of nature. The history of the Anthropocene—or what is commonly referred to as “The Great Acceleration” and spurred by 19th century industrialism—is like Beethoven’s Symphony no. 7 in A, op. 92: just as the first movement begins very slowly, so did life on Earth. The symphony, the Earth, and now the Anthropocene all exist on very large scales that emphasize vast chords of carefully arranged musical, ecological, and forevermore destructive rhythms. Just like the ever-present permutation of the flute in Symphony no. 7’s four movements, humans have enmeshed themselves within the Earth’s soil, sea, and sky for 200,000 years. In our more recent history, we have created an allegro-like whirling frenzy of unrestricted and out of control industries that have abandoned—in a muscular show of force—Earth’s sophisticated ecology. Intransdisciplinary ways, both Beethoven and Estok can teach us valuable lessons regarding the Anthropocene: just as Symphony no. 7’s scherzo
emphasizes the halting note of a-minor, the condition of global warming has triggered, as Carol L. Berzonsky and Susanne C. Moser acknowledge, the “profound ending” to life as we know it (“Becoming homo sapiens sapiens” 19). The abrupt phenomena of climate change has stalled our party and put modernity on pause as we begin to take responsibility for the dangerous ecological enmeshments that we, as humans, have carelessly created. Estok’s concept of ecophobia, like Beethoven’s sustained A note, forces us to confront our collective environmental error.

Estok’s theorization performs what Stacy Alaimo calls on us to do: begin to “unmoor” our self-deceptions and critical ambivalence about our relationship with nonhuman nature (Alaimo 407). Estok is in league with a growing number of ecocritics, including Andy Fisher, Peter H. Kahn Jr. and Patricia H. Hasbach, Susanne C. Moser, Bill Plotkin, Theodore Roszak, Susan Rowland, and Fernando Castrillon, who have begun to use psychology and neuropsychology to emphasize the maladaptive human behaviors that have caused this global quandary. Moser, in particular, has succinctly defined maladaptive behaviors as “the denial of the existence of the threat... a belief that the problem won’t happen here...blaming others for it... wishful thinking... that the problem will go away on its own... the displacement of one’s attention” or a general paralysis about the situation (67–68). Her rationale suggests that humans, even while experiencing a “psychic numbing” to climate change, are still complicit since we resist correcting our maladaptive responses.

The Ecophobia Hypothesis, as Estok gingerly describes in his Introduction, is a timely “Platonic stepping stone” that considers a new methodological model to address the human complicity in climate change (2). Admitting the cleft between theory and practice, this hypothesis offers a new conceptual model that uses the interdisciplinary frameworks of the natural sciences, social sciences, and the environmental humanities, extending what Jesse Oak Taylor has dubbed as humanity’s “abnatural” relationship with Earth’s ecological environments (5). Incorporating the basic human affects of fear and anger into his definition, Estok reasons that

The ecophobic condition exists on a spectrum and can embody fear, contempt, indifference, or lack of mindfulness (or some combination of these) towards the natural environment. While its genetic origins have functioned, in part, to preserve our species, the ecophobic condition has also greatly serviced growth economies and ideological interests. Often a product of behaviors serviceable in the past but destructive in the present, it is also sometimes a product of the perceived requirements of our seemingly exponential growth. Ecophobia exists globally on both macro and micro levels, and its manifestation is at times directly apparent and obvious but is also often deeply obscured by the clutter of habit and ignorance.

(Introduction 1)
Estok’s theory begins to address how the unique human condition of ecophobia has undermined humanity’s self-preservation in its own environment—what E. Ann Kaplan has provocatively noted is a unique human form of eco-suicide (143). Estok’s theory first seeks our acceptance of ecophobia as a maladaptive, reflexive, and somewhat unconscious condition that is based in affect. He then offers intelligent insights about the ways in which we have amplified our aggressions towards nature, and he does so in a practical attempt to jump-start the reconditioning of our affective connections to nature.

The book’s first chapter importantly asks us to reconsider the relationships between biophilia and ecophobia; Estok claims that both biophilia and ecophobia are located “on opposite ends of the same spectrum” (22). As Wilson notes in The Diversity of Life, biophilia involves “the connections that human beings subconsciously seek with the rest of life” (350). Therefore, it is reasonable to extend his premise to include ecophobia as a distinct affective condition occurring on the same pathological spectrum as biophilia, albeit positioned at the other end of the range. Both Wilson and Estok agree that phobias are acquired in what Wilson first described as the process of “prepared learning” (The Social Conquest of Earth 59). Though both consider the intricacies of neuroscience networks in forming phobias, it is significant that Wilson, as an evolutionary biologist, admits to the social acquisition of phobia as a maladaptive trait: this admission suggests possibilities for what Eva Jablonka has newly noted as a type of cultural epigenetic framework incorporating not just the biological sciences but, as she describes, “the social sciences and the humanities” (“Cultural Epigenetics” 55). Within the social science disciplines, environmental psychologists are addressing, as Janet K. Swim et al. note, the urgent “cognitive, affective, and motivational processes” of climate change adaptation (242). Psychology, Swim claims, is particularly suited to prompt a new value system by emphasizing how “collective action driven by individuals’ short-term benefits... degrades a long-term common good” (243). More recently, Berzon and Moser have put forth a polemical methodology for enacting the “psycho-cultural transformation” needed to confront climate change (15). Drawing from depth psychology’s archetypal death and rebirth process, they delineate the procedures involved in the “psychological transformative process” (17). This process first involves one’s severance from previous lifestyles, followed by an uncomfortable passing from the liminal death process to an eventual psychological renewal that supports “life-sustaining” cultures (19). Going forward, ecocritical scholars and scientists can utilize these cultural epigenetic frameworks to expand lines of inquiry into the study of ecophobia from the diverse and multiple perspectives of the biological sciences, the social sciences, and the humanities. As Scott Slovic has suggested, the environmental humanities are central to this task since the field theorizes and succinctly communicates the ways in which “natural systems” are interpreted by human culture (181).
One cannot consider the ecophobia hypothesis without also taking into account the term’s origins and its theoretical lineage. The *Oxford English Dictionary* defines the term “phobia” as “(A) fear, (a) horror, (an) aversion; esp. an abnormal and irrational fear or dread aroused by a particular object or circumstance.” The first recorded use of the term occurred in 1786 in *The Columbian magazine, or monthly miscellany*, which defined “phobia” as the “fear of an imaginary evil, or an undue fear of a real one.”

By the 19th century, the scientific study of phobias saw its early theorizations in studies of fear by scientists such as Charles Darwin. In his *Expression of Emotions in Man and Animals* (1872), Darwin noted that fear is “the most depressing of all the emotions,” inducing “helpless prostration, as if in consequence of, or in association with, the most violent and prolonged attempts to escape from the danger” (82–83). He went on to observe that “nevertheless, even extreme fear often acts at first as a powerful stimulant. A man or animal driven through terror to desperation, is endowed with wonderful strength, and is notoriously dangerous in the highest degree” (83). Emphasizing the scalar intensity of fear, Darwin suggested the term “terror” as a mode of extreme fear manifested by facial expressions, a rapid heartbeat, perspiration, and pupil dilation, among other things.

Darwin’s studies of fear were extended with the advent of the scientific study of phobia conditions at the fin de siècle. In particular, Théodule Ribot’s *Psychology of the Emotions* (1897) began by distinguishing between hereditary, instinctual, and “unreasoning” fears, and those derived from experiences located in consciousness (209). Ribot observed clear differences between stages of fear, distinguishing them as either “healthy” or “morbid,” reasoning that forms of fear that cease to be useful to survival become destructive and pathological (213). Importantly, he observed that morbid fears that are “disproportionate” and “chronic” are examples of phobias (213).

Freud’s notions of phobias, notes David S. Spira, evolved over three decades. Freud’s early understanding, put forth in 1894, theorized that phobias derive from unconscious affective reactions to trauma. This theory evolved between 1895 and 1920 with the Little Hans (1909) and Wolf Man (1918) case examples, which considered the formation of phobias through modes of objectification, repression, and displacement. Freud’s theory evolved once more in 1926, according to Spira, and focused on whether phobia is “an inhibition or a symptom” consisting of displacement and regression (390). While Spira claims that Freud was left unsatisfied with his canon of phobia theorizations, they remain relevant to the theory at hand—ecophobia. In “The Unconscious” (1915), Freud hypothesizes three stages inherent in the formation of phobias: unconscious anxiety, displacement and repression, and avoidance. These three modes are quite apparent in the many ways in which Estok’s book evidences ecophobic conditions in novels, poetry, plays, films, and mainstream media.
The Ecophobia Hypothesis helps us consider fear’s biological and psychological bases in order to help us renegotiate our phobias of nature. Estok’s proposal, evidenced by today’s scientific studies that have made major advances in our understanding of the neurocircuitry of fear, anxiety, and phobias, is a reasonable proposition. The key physiological locations of fear circuitry, note Shin and Liberzon, include the amygdala, hippocampus, brain stem, insular cortex, and brain’s prefrontal regions (169). Yet, almost one hundred and fifty years after Darwin’s studies on fear, the exact brain location where fear memories are stored is still under debate (170). What we do know, according to Shin and Liberzon, is that avoidance and aversion—two hallmarks of ecophobia—are chronic reactions to anxiety and fear that cause us “significant distress and/or impairment in occupational, academic, or social functioning” (179). These maladaptations, extended to what we may now consider the epidemic of ecophobia, are quite significant, given that Shin and Liberzon cite phobias as a “common disorder, with a lifetime prevalence of 7–11% (APA, 2000)” (179). In considering the biology of fear, scientists now agree, claims Lea Winerman, that “the amygdala—a small, almond-shaped structure in the middle of the brain’s temporal lobes—is a key player” of phobias, and its “malfunctions” are associated with phobic formation (96). Although evidence now clearly indicates that phobic fears reside as brain-based material biological entities, Estok finds the way forward to this homoeocological quandary by underscoring the epigenesis of ecophobia as a cultural illness deriving mostly from our maladaptive conditioning.2

So, what is the way forward? We must first honestly acknowledge our fear of nature: how we displace it, repress it, or mask it. Estok’s analyses of waste provide a perfect Freudian analogy of our ecophobia of garbage since we universally displace our waste onto garbage barges or bury it in landfills that are then sealed by a cover mask of soil, grass, and kudzu. This mediation and disguise of our waste symbolizes humanity’s hollow ecology, and it is only when we begin to reframe our displacement and masking of garbage in this way as ecophobic repression that we can begin to cognitively restructure the way we approach the ecological systems of Earth.

Just as the fields of ecofeminism, ecocinema, and ecomedia have emerged as environmental humanities’ subfields, Estok’s ecophobia hypothesis invites us to consider the ways in which the human condition has adopted the maladaptive trait of cultural ecophobia. It is a jarring invitation but one that, if acted on, could engender the human resiliency to restore our collective ecological trust.

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Notes

1 Many scholars have contributed diverse lines of inquiry to the ecocritical canon, including Joni Adamson’s work on indigenous cosmopolitics, Kevin Curran’s ecocriticism of Shakespeare, Jeffrey Jerome Cohen’s considerations of the inhuman, Greta Gaard’s theorizations on feminist ecocriticism, Catriona Sandiland’s considerations of political ecofeminisms, Nicole Seymour’s work on queer ecologies, Michael Rubenstein’s theories on infrastructure, and Cary Wolfe’s ideas on posthumanism, among many others.

2 Here, I purposely entangle the human genus within Earth’s ecology systems.

Bibliography


