ORGANISM, ENVIRONMENT, AND AFFECTIVITY: FOR A PRAGMATIST READING OF ECO-EMOTIONS

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ABSTRACT: The increasing amount of scientific research on the topic attests to a growing interest in the psychological effects that the ecological and climate crises have had on people. Specifically, climate psychologists have adopted the term 'eco-emotions' to characterize people's emotional reactions to the danger or consequences of climate change and related calamities. This article aims to employ a pragmatist theoretical framework in order to provide a philosophical analysis of eco-emotionality, in relation both to its nature and its potential to transform climate-relevant habits. The concept of 'eco-emotion' is not a rigorous one and often relies on generic definitions and an intuitive understanding of the term. To better comprehend this notion, three relevant aspects are highlighted: its multilayered nature, which involves practical, political, moral, personal, and existential factors; the distinction between more general eco-emotions and more specific climate emotions; and the significance of the geographical context in which they appear. After that, the theoretical backdrop is established, by presenting the pragmatist understanding of emotions developed by William James and John Dewey. In this view, emotions are relational, situated, intelligent, and action-oriented. By placing emotions beyond the narrow borders of the human mind and extending them not only to the body but to the whole environment (both social and natural) James and Dewey present a nuanced ecological conception of emotions. Furthermore, by connecting them to habits they offer a precious insight into their functioning. Finally, building upon the previously established theoretical framework, the article proposes a pragmatist understanding of eco-emotions. This perspective is beneficial in more than one way. From a theoretical standpoint, it provides a direct connection between an organism's emotional life and the environment that organism inhabits. At the same time, by maintaining the continuity between nature and culture, it avoids naïve naturalistic solutions. From a practical standpoint, the pragmatist approach advocates for the political value of eco-emotions, by negating the affectivity-rationality dualism and, instead, insisting on the action-oriented character of emotions. Furthermore, given the link between emotions and habits, it highlights the role eco-emotions could play in changing climate-relevant habits.

Keywords: eco-emotions; pragmatism; environment; climate psychology; ecological crisis; climate-relevant habits

Introduction

In recent years, the study of the psychological impact of the ecological and climate crisis on human beings has garnered much attention, as testified by the growing body of scientific research on the subject. In particular, climate psychologists have started utilizing the concept of 'eco-emotions' in order to describe the emotional response people have when faced with the consequences or the threat of climate change and climate disasters. In this article, I will argue that (1) the pragmatist theoretical framework can be extremely useful to understand the nature of eco-emotions and (2) the pragmatist approach can also enable the potential for pro-environmental transformation inherent in eco-emotions. In order to clarify the terms of the discussion, section 1 will be dedicated to the notion of 'eco-emotions' by covering three crucial aspects: its multilayered nature, which involves moral, political, personal, and existential elements; the distinction between eco-emotions and the more specific term 'climate emotions'; how geographical distribution influences the type of eco-emotional response. Section 2, instead, will be focused on the pragmatist understanding of emotions as found in the works of William James and John Dewey. This approach, I argue, is inherently ecological as it conceptualizes emotions as always relational, situated, and action-oriented. In the final section, the general pragmatist approach to the philosophical study of emotions will be applied to the specific case of eco-emotions. I suggest that this analysis provides both theoretical and practical advantages, not only by fully accounting for the complex stratification of the multiple aspects composing eco-emotions but also by acknowledging their precious role in influencing and changing climate-relevant habits.

1. Defining eco-emotions

In broad terms, eco-emotions are emotional states that people experience in relation to the environment and,

more often than not, in relation to the ecological crises that threaten and affect said environments. Psychologists have identified a great number of eco-emotions (Pikhala (2022) counts about 56 throughout the literature) such as eco-anxiety, eco-anger, eco-guilt, eco-despair but also eco-joy, eco-hope, and many others. Such a proliferation of eco-emotions calls for the identification of some common traits among them in order to better manage the subject. A good starting point to understand this notion is the work of the American philosopher Glenn Albrecht, who pioneered the study of the emotional aspects of the relationship between humans and the Earth (see Albrecht 2005). In general, he suggests, eco-emotions involve "a psychic or emotional state tied to the particular condition of a person's biophysical environment" (Albrecht 2019, 63). In the contemporary psychological literature on the topic, the term "emotion" is utilized very broadly, not paying much attention to its exact definition but rather relying on an intuitive understating of it (Pikhala 2022). This largely depends on the fact that there are many competing theories of emotion, each providing a different definition. Rather than a simple terminological clarification, then, every distinction requires a certain theoretical commitment. This ambiguity, however, can sometimes lead to some confusion. For example, intuitively "emotion" refers to a transient, momentary state, while phenomena such as eco-depression or even eco-anxiety continue over a longer period of time (Schwaab et al. 2022). I shall, both for simplicity's sake and in order to remain coherent with the psychological literature, continue using "eco-emotion" as a broad and flexible umbrella term. That being said, in sections 2 and 3 I will also propose a model of affectivity that I consider the most useful to fully comprehend and discuss eco-emotions.

What is most interesting about this phenomenon is that it reveals a psychological dimension of humanity's involvement with the environment that has been often overlooked. The study of eco-emotions is, therefore, relevant in at least two ways. On the one hand, they are, at least in part, a consequence of climate change and therefore should be investigated together with the other negative consequences of the ecological crisis on human well-being. The health risks of a damaged environment should not only be understood in terms of direct physical harm (natural disasters, droughts, pollution, etc.) but also from the perspective of its psychological and psycho-somatic consequences (Clayton *et al.* 2014). On the other hand, studies have shown how climate-related emotions play an important role in shaping one's behavior. They not only testify to an awareness of environmental issues but also function as prompts to take action. Additionally, as I will argue later in the article, they could also be a tool to better understand affectivity in general and the relationship between humans and their (social and natural) environment.

Before diving into any philosophical discussion of eco-emotions, however, some clarifications are needed. This section will focus on three aspects that are necessary to properly understand the notion of eco-emotion: (1) the layered nature of eco-emotions and how they are composed of multiple elements and motivated by various causes; (2) the distinction between climate emotions, which are by far the most studied, and eco-emotions, which are a more general category to which climate emotions belong; finally, (3) the geographical distribution of eco-emotions and how the presence of different kinds of eco-emotional responses relates to social, economic and political differences.

As mentioned earlier, the climate crisis has led to the development of mental disorders in response to both primary consequences of climate change, such as extreme weather events and disasters like floods and wildfires (Colishaw 2022), and secondary consequences, such as food insecurity and migration (Walinski *et al.* 2023). On the other hand, even those not directly touched by the climate crisis experience forms of psychological and emotional distress such as eco-anxiety. The latter emerges both as an empathic response to the suffering of oth-

ers and as a deep concern for one's own future (Ágoston 2022 *et al*.).

What makes eco-emotions such a fascinating but complex phenomenon are the many kinds of interests that constitute and shape them. There is, of course, the practical concern for one's future situation, which would certainly be negatively impacted by the devastation of one's living environment. However, even this preoccupation has a certain depth, for it is often temporally extended so as to include future generations and thus brings the question of intergenerational justice into the discussion. Morality seems, in fact, deeply linked with the experience of eco-emotions (Kurth & Pikhala 2022). Even without directly suffering from the climate crisis, feelings such as eco-anger can be linked to the perceived injustice of people suffering the consequences of an unsustainable model of natural exploitation. But this need not be limited to the suffering of other humans. The disastrous impact that extractivism and climate change have on Earth's ecosystems, leading to the destruction of non-human animals and plants, can also be the source of moral outrage. Furthermore, the recognition of anthropogenic climate change forces us to reconsider our role *as* human beings. There is, therefore, an existential dimension to emotions such as eco-anxiety, eco-guilt, and eco-despair, which stems from the role humanity has played and keeps playing in the aptly called Anthropocene (Pikhala 2018). If anxiety as a feature of subjectivity is evidently tied to the subject's relatedness to the environment, then eco-anxiety emerges when this environment is specifically characterized as natural (Budziszewska & Jonsson 2021). The responsibility towards the environment, which may in some cases extend beyond the specific interest to preserve one's way of living, must nonetheless return to the practical plane of action, political action in particular. For example, one may experience eco-anger in relation to their government's inability or unwillingness to adopt pro-climate policies (Kleres & Wettenberg 2017; Hickman *et al*. 2021), suffer eco-depression realizing the limited efficacy of individual action or eco-anxiety when confronted with denialist or minimizing opinions in discussions with friends and family (Ágoston *et al*. 2022).

Although most studies speak in general of eco-emotions, most of them are dedicated to a specific subset of eco-emotions, climate emotions. Put simply, climate emotions are those eco-emotions that arise from facing climate change. Of course, the difference between climate emotions and eco-emotions can be connected to the difference between the climate and the ecological crisis. Like in the case of the emotions we presented, the climate crisis is only a part of a wider ecological crisis. Let us take the case of eco-anxiety, probably the most famous and most discussed of all climate emotions (Pikhala 2020). When a person is feeling anxious about the conditions of the environment, they are likely mostly worried about how those changes will impact them and their community. Floods, droughts, desertification, massive crop failures, and similar phenomena directly threaten to forever alter the way of life of millions of people. These worries are, of course, legitimate and, in a time where climate denialism is still a topic of discussion, might even be considered noble and far-sighted. They do not, however, concern the ecological crisis to its full extent.

Take, for example, the human-induced decline in biodiversity, which proceeds at an abnormally accelerated rate and has therefore led some biologists to denounce a sixth mass extinction (Leaky & Lewin 1995). From the point of view of Earth's ecosystem, this is a tragedy. Yet, given the fact that the species that fall victim to this mass extinction are mostly species of insects (which, in actuality, constitute about 80% of earth's biodiversity) one may not be so touched by this fact. This bias toward non-human animals which somehow feel more human compared to alien-looking insects is so strong that some studies denying the sixth mass extinction fail to consider the insect population entirely (Cowie *et al*. 2022). Someone may be anxious when imagining their future in a climate apocalypse, while not necessarily caring about a

number of unknown 'bugs' who disappear from the face of the earth at an alarming rate. If one intends to consider eco-emotions beyond their role in the individual's psychological well-being, as instruments to understand, and act in, the ecological crisis, it may be wise to not exclusively insist on climate-related emotivity.

In criticizing the rise of an often catastrophic and pessimistic outlook on the current climate crisis adopted by certain authors (Scranton 2018; Franzen 2021), some have pointed out that despair is a privilege that only those not directly faced with its consequences can enjoy (Whyte 2020; Higgins 2022). Those in the global West, who only recently have come to face the consequences of the environmental crisis and yet only in milder ways, can more easily declare that it is "too late". This becomes even more egregious if we think that the privileged Westerners not only do not directly face the environmental crisis' harshest consequences but also enjoy the benefits of the exploitative economic system that caused them in the first place.

This seems to be confirmed by recent evidence on the geographical distribution of the different kinds of eco-emotions. Although the study of eco-emotions has been heavily skewed toward the Global North (Coffey 2021), centering mostly around young adults in White, Educated, Industrialized, Rich, and Democratic (WEIRD) contexts (Hiser & Lynch 2021), recent studies move towards embracing a wider variety of experiences (Cooper *et al*. 2019; Hickman *et al*. 2021). In a recent exploratory study, Voski *et al*. (2023) found that, unlike their Western counterparts, Turkish environmentalists are more likely to experience eco-anger and eco-grief rather than eco-anxiety. It is also worth mentioning where this eco-anger is directed: not just to the Turkish government, but to the Global North, identified as responsible for the current crisis. Privileged Westerners seem to agree, as they are also more prone to experience eco-guilt, together with the aforementioned eco-anxiety.

Something should however be highlighted. Despite maybe being dictated by a more privileged position in the geo-political map, emotions such as eco-anxiety and even eco-depression do, in fact, contribute to elicit engagement with environmental issues. Though there is only limited evidence, initial studies present, at least in the case of climate activism, a much more complex picture than the traditional equation between psychological despair and political inaction. A 2021 study reports that participants who experienced feelings of eco-depression while doubting the effectiveness of activism at the individual level were more likely to be involved in collective forms of activism; those who experienced eco-anxiety, instead, focused more on their own individual behavior veering towards more sustainable habits (Stanley *et al*. 2021). Though we might have expected the opposite, eco-depression does not inhibit political and climatic activism but uses the latter as a means of managing feelings of sadness and psychological malaise (Schwartz *et al*. 2022). Eco-paralysis, i.e. the inability to decide and act when faced with the psychologically distressing reality of climate change, is, of course, a possibility (Davenport 2017). Engaging in pro-environmental behavior is, however, a successful coping strategy (Ciancioni *et al*. 2023), that enables individuals to take control of their environmental impact and even to form communities.

2. The pragmatist view on emotions

Classical pragmatists have greatly contributed to the development of the contemporary study of emotions ever since its conception, and are still to this day a precious source of inspiration for the research on the topic. In this section, I will highlight one particular aspect of the pragmatist view on emotions: their ecological and relational nature. This feature, as will become apparent later, is crucial to understand that special subset of the emotional life which falls under the name of "eco-emotions".

Among the pragmatists, William James is probably the one most directly associated with a theory of emotions even outside the philosophical circles. The James-

Lange theory of emotions (called this way in recognition of the similar but independently developed work of Danish physician Carl Georg Lange) represents an important step in the field of psychology. The most well-known feature of James's account is his focus on the somatic aspects of emotionality. Against the commonsensical idea that bodily changes follow an emotion triggered by an exciting external factor as if they are expressions of an internal feeling, he identified those bodily changes with the emotion itself. In James's own words, his theory is that "the bodily changes follow directly the perception of the exciting fact, and that our feeling of the same changes as they occur IS the emotion" (James 1884, 189-190). While in Darwin's reconstruction (1872), which had a great influence on the pragmatists, bodily changes follow the emergence of an internal state, James inverts the order. According to the famous (some would say infamous) slogan: It's not that I run because I'm afraid; rather, I'm afraid because I run. Rather than debating the viability of this thesis, which has its contemporary defenders in neo-Jamensians such as Damasio (1994) and Prinz (2004), it is important to recognize its merits.

The most well-known, and maybe even most important, contribution to the philosophical and psychological discussion of emotion is the establishment of the prominent role of the body. James's somatism is very influential, but there are other interesting aspects that should be considered. By emphasizing the plasticity of the human nervous system, James (1890) introduces the idea that the brain is a constant relation of exchange with its surroundings. Social, cultural, and environmental factors contribute to shaping the organism since birth, and emotions, in this sense, are a sign of the radical openness of the organism to its environment. In fact, James, in true Darwinian fashion, connects our emotional life to an adaptive function: "Our various ways of feeling and thinking have grown to be what they are because of their utility in shaping our *reactions* on the outer world" (1892, 4). Furthermore, since "the most important part of my environment is my fellow man" (James 1884), a social dimension is also present. It is not the single object to elicit a certain emotion, but the situation in which the organism encounters said object. Past experiences, as well as socially derived interpretations, contribute to situating the emotion-provoking object in the present circumstances (Barbalet 2001).

Emotion is, thus, not only corporeal but situated. It defines the organism's involvement with the world and, again following a Darwinian approach, its capacity to navigate it. According to James, emotions let us assign value to things and therefore direct our actions; without them, we would be detached and lost in our own environment (Ratcliffe 2005, 188). The emotional encounter with the situated object contributes to shaping both the object and the situation by bringing the needs and concerns of the organism into the picture. An interesting consequence of this view (and one which James coherently develops) is that cognition cannot be separated from affectivity, let alone stand on its own: Rationality itself is guided in some form by elements belonging to the realm of affectivity (James 1879).

These ideas can also be found in the works of John Dewey. Already in his first book, *Psychology*, of 1887, Dewey connected the concept of emotion with that of interest. The organism participates in the world by evaluating its surrounding environment, but such an evaluation cannot be reduced to a purely cognitive judgment. Adopting the functionalist psychology developed by James and inspired by Darwin (Dewey 1971), the philosopher connects affectivity with the function of preserving and advancing life. Similarly, Deweyan instrumentalist logic, which is maximally developed in *Logic: Theory of Inquiry* (1986), traces abstract reasoning and knowledge acquisition back to a biological basis. Again inspired by Darwinian evolutionary theory, Dewey considers the ability to reason and know things about the world as a tool developed by the human organism in relation to its environment in order to survive and thrive. Cognition and

reasoning, however, cannot be separated from emotivity, let alone be placed on a superior level (Cunningham 1995). On the contrary, Dewey is quoted by his student Earl Peckham as saying that "knowledge is a small cup of water floating on a sea of emotion" (Williams 1982, 127). Furthermore, emotion is not simply the foundation of rational thought, from which the latter develops in continuity rather than in opposition, but also its culmination. Rationality does not stand on its own, disembodied, unemotional, and aethereal. Rather "'Reason' at its height cannot attain complete grasp and a self-contained assurance. It must fall back upon imagination—upon the embodiment of ideas in emotionally charged sense" (Dewey 1980, 33). Thus, emotion does not simply aid the process of knowledge acquisition through its initial role of proto-valuation (Dewey 1984a), but guides it and completes it (Quéré 2018). As stated before, emotions are the organism enjoying or suffering the environment and thus rest on the same level of cognitive reasoning, for "knowing is but one special case of the agent-patient, of the behaver-enjoyer-sufferer situation" (Dewey 1978, 120).

On a Deweyan reading, emotions carry an element of proto-valuation, that is, a form of evaluation that is not the result of a cognitive judgment but depends on how the organism feels in the situation it is in (Dreon 2019, 86). There always is, then, an intelligent content to emotion, although not a reflexive one. What the (proto-)valuative aspect of emotions indicates is that their relationality should not be understood simply as object-oriented, but also as action-oriented (Hufendiek 2021, 105). Better yet, object-orientedness should be understood directly as action-orientedness. According to Dewey (1971), in fact, emotions are characterized by a "readiness to act in a certain way" that the body assumes towards some object or situation. This idea is even present etymologically in the word emotion, which comes from the Latin *emovere*, to cause movement. Such a reading bears some similarities with the cognitivist position on emotion. For example, much like Dewey, Arnold and Gasson (1954) define emotion as "the felt tendency towards an object judged suitable, or away judged unsuitable, reinforced by specific bodily changes". The limits of such a definition, however, are evident and constitute a step back from pragmatism. To think of emotions this way would mean restricting them to an afterthought, something once again emerging from cognition and depending on it. But, as noted by the American neuroscientist Joseph LeDoux, "it is, indeed, possible for your brain to know that something is good or bad before it knows exactly what it is" (1998, 65). This distinction between a primary, non-reflexive, appraisal and a secondary, reflexive, appraisal (Colombetti 2014) is very much in line with the role that Dewey attributes to emotions.

They not only extend through the body, as James observed but are also always about the environment in which the organism finds itself and is directed towards acting in said environment. As expressed by Dewey in this passage of *Experience and Nature*, the nature of emotion is not passivity but participation:

> Emotion in its ordinary sense is something called out *by* objects, physical and personal; it is response *to* an objective situation. It is not something existing by itself which then employs material through which to express itself. Emotion is an indication of intimate participation, in a more or less excited way in some scene of nature or life; it is, so to speak, an attitude or disposition which is a function of objective things (Dewey 1929, 390).[1]

The constitutive role of our surroundings intended not only as the origin of affect but also as a resource and a field of action, is an aspect many psychologists have come to recognize. Emotions, as Frijda & Mesquita write, are "first and foremost, modes of relating to the environment: states of readiness for engaging, or not engaging, in interaction with that environment" (1994, 51; see also Lazarus 1991). But Dewey's view seems to go further than that. Emotions are not an internal, private matter; on the contrary, they exist 'out there', in the world (Morse 2010).

[1] Emphasis in the original.

"Emotion belongs of a certainty to the self", Dewey notes, "but it belongs to the self that is concerned in the movement of events towards an issue that is desired or disliked" (1980, 42). Dewey's ecological conception of emotions should therefore be understood in the context of his 'eco-ontology', as Alexander (2013) has called it. Organisms and environment are not separate and independent beings that could stand on their own. They are, instead, complementary and interdependent. Their interaction is primary, while the separation of the two as distinct elements is secondary and only the result of a subsequent operation of abstraction (Dewey 1984a): By vindicating the priority of transaction and processes over the traditional notion of static and independent objects, Dewey salvages the reality of qualitative experience, including emotional experience (Dewey 1960). Through the primitive concept of 'association', Dewey (1984b; 1988) is able to present the objects in which we normally divide the world as primarily and constitutively in relation to each other and to their environment. Even the traditional philosophical distinction and contraposition between subject and object fades, as it is not possible to clearly distinguish one from the other once one recognizes their constant permeation and cooperation (Dewey & Bentley 1991). Yet, one should not consider this as a form of Parmenidean monism where the variety of the world is but an illusion veiling an unchanged Oneness. On the contrary, organisms and environments are in a constant relationship of *transaction*, whereby each transforms and adapts in a looping circle of creative and reciprocal exchange.

The notion of transaction is essential to understanding Dewey's conception of habit and its relationship with emotions. According to Dewey, in fact, habit is the result of the dynamic process of transaction between an organism and its social and natural environment. Both the physiological conditions of the organism and the material and social conditions of its surroundings contribute to the cooperation between organisms and environment necessary for the birth of habits: walking requires the ground as well as the legs and even breathing involves both the air and the lungs (Dewey 1983). Despite the widespread prejudice painting habits as mindless, automatic, and mechanical, Dewey insists on their adaptiveness. They require, at the same time, both the adaptation of our behavior to the environment and the adaptation of the environment to our behavior. Even though habits are, by their nature, acquired and stable dispositions and therefore somewhat resistant to change, they also demonstrate a sensitivity to variations which determines their ability to change. This ability to capture malfunctioning habits is, indeed, emotion. As Dewey puts it, emotion emerges from "the failure of habitual teleological machinery, through some disturbance in one or more of the adjusted members of the habit" (1971, 139). While a person might not pay attention to a habit as long as it is doing its job and might not even be fully aware of its presence, once the habit fails or malfunctions its existence becomes apparent. As Dewey writes in *Human Nature and Conduct*:

> Emotion is a perturbation from clash or failure of habit, and reflection, roughly speaking, is the painful effort of disturbed habits to readjust themselves. [...] In truth, feelings as well as reason spring up within action. Breach of custom or habit is the source of sympathetic resentment, while overt approbation goes out to fidelity to custom maintained under exceptional circumstances (Dewey 1983, 54).

During our everyday transactions with the world surrounding us, a single habit might not yield the expected result, or a certain situation might involve two conflicting habits. Although this is presented as an unpleasant experience, it still has a crucial and indispensable function: emotions detect both a change in the environment and the need for a proportionate change in the organism.

3. Eco-emotions from a pragmatist standpoint

Having provided a general overview of what eco-emotions are and the pragmatist understanding of emotions, I proceed now to combine the two and apply the

pragmatist framework to the philosophical study of eco-emotions. A pragmatist understanding of eco-emotions offers both theoretical and practical advantages. As for the theoretical advantages, pragmatism enhances our understanding of eco-emotions by establishing a direct correlation between the organism's emotional life and the environment and by affirming the continuity between the cultural and the natural. For what concerns the practical advantages, pragmatism reveals the potential of translating eco-emotivity in practical, political, and concrete ways by showing the interrelatedness of the emotional and the rational and action-oriented character of this union, and by framing eco-emotions as tools to acknowledge and transform eco-relevant habits.

Dewey's non-dualistic naturalism certainly offers a way to dispute the asymmetry between humans and the non-human world. Qualitative experiences such as eco-anxiety, eco-anger but also eco-euphoria, and other positive eco-emotions are not confined to the realm of closed subjectivity but are a way of actively participating in nature. This fundamental intuition informs Dewey's masterpiece *Experience and Nature*:

> Experience is *of* as well as *in* nature. It is not experience which is experienced, but nature — stones, plants, animals, diseases, health, temperature, electricity, and so on. Things interacting in certain ways are experience; they are what is experienced. Linked in certain other ways with another natural object — the human organism — they are how things are experienced as well. Experience thus reaches down into nature; it has depth (Dewey 1929, 4a)[2].

The emotional holism evoked by these words is deeply connected to the aesthetic aspects of experiencing nature often found in poetry and works of art. As expressed by Lord Byron in his 1818 poem *Childe Harold's Pilgrimage*: "I live not in myself, but I become/ Portion of that around me; and to me,/ High mountains are a feeling" (Byron 2014). For another example, one could also think of the comprehensive harmony of nature found in *Leaves of Grass* by Walt Whitman, a poet whom Dewey greatly admired (Garrison 2011). The assumption that there is a special emotional relationship between humanity and nature seems to capture a distinctive aspect of eco-emotions. At the same time, however, a simplistic and naïve biophilic interpretation of these affective phenomena is destined to fail in at least two ways. Firstly, it would not be able to properly account for the political aspects of eco-emotions; secondly, it would disregard the fact that human organisms are, as Dewey would put it, naturally cultural and can in no way be reduced to one dimension or the other.

The biophilia hypothesis, first proposed by biologist E.O. Wilson (1984; 1993), suggests that there is a distinct and innate bond connecting humans with nature and other living organisms. A consequence of the hypothesis that there is a specific "emotional affiliation" (Wilson 2002, 134) between humans and nature is that exposure to the natural environment has positive effects on human well-being, especially mental and emotional health. This affiliation can also be connected with the idea of 'biospheric values', i.e. the intrinsic worth some people attribute to nature, the environment, and all living organisms, usually leading them to engage in pro-environmental behavior (Wang *et al*. 2021). Wilson argues in favor of biophilia on an evolutionary basis: throughout human evolution, our ancestors who were more attuned to nature and had a strong connection with the natural environment were more likely to survive and reproduce (Berto & Barbiero 2021). As a result, a predisposition or affinity for nature has become ingrained in human psychology. Though not without criticism (Joye & DeBlock 2011), it has been suggested that the biophilia hypothesis captures the very intuition at the basis of eco-psychology in general (Roszak *et al*. 1995). Furthermore, although not conclusive, there is a fairly vast pool of scientific evidence pointing to the beneficial effect of exposure to nature (McMahan & Estes 2015; Gaekwad *et al*. 2022). By being grounded in evolutionary theory, the biophil-

[2] Emphasis in the original.

ia hypothesis demonstrates an immediate affinity with pragmatism. However, if it were to stop at the level of a primitivistic theory of a return to nature, with a static and idyllic (as well as unclear and obscure) notion of what nature is, it would fail the pragmatist test. In fact, Dewey's "cultural naturalism" is based on the rejection of both the nature-culture dualism and reductionism, in favor of a dynamic and plastic interplay between the cultural and the natural (Gregoratto *et al*. 2022). The most recent developments in biophilia recognize the risks of failure to account for the continuity between the natural and the cultural settings and actually try to utilize said continuity. For example, biophilic design tries to translate the inherent affinity of human organisms for natural environments to the design of built environments (Kellert *et al*. 2013). The notion of "topophilia", on the other hand, replaces the controversial distinction between natural and non-natural environments with the concept of *topos*, a specific and experienced place characterized by the continuity of natural and cultural aspects as interacting with each other (Beery *et al*. 2015). "The capacity of the human species *to bond with*",[3] Barbiero (2011) notes, "is only in part genetically programmed, and instead depends to a large degree upon the development of psychological potentials that themselves depend more upon cultural than genetic contexts". Thus, the biophilic framework calls for the development of an affective ecology aimed at educating people at cultivating the required awareness and sensibility necessary to understand their connection to the environment (Barbiero 2014).

Take the term 'solastalgia', coined and developed by Albrecht (2005; 2020) as a blend word resulting from the union of 'solace' and 'nostalgia'. This very specific eco-emotion describes the psychological distress suffered by people who are impacted by climate change in direct connection to their home environment. A lived place where they could solace and rest is now disrupted, severing the connection that the organism had with that environment. Given the co-constitutive relation between organism and environment illustrated in the previous paragraph, an ecological disaster represents a direct loss of an emotional resource. In particular, the distress identified by Albrecht could be understood in relation to the notion of *affective environmental scaffoldings* (Colombetti & Kruger 2015). The idea at the core of affective scaffoldings is that the processes of emotional regulation are not exclusively mental but are corporally, socially, and materially distributed. Consequently, the devastation of a *topos*, a specific lived and experienced place, also represents the devastation of an emotional space. Importantly, though, emotional regulation through scaffoldings does not equate to emotional alienation. For this reason, some have suggested avoiding the reification of affective scaffoldings (the body, other people, material objects) by thinking of them as processes and activities (Candiotto & Piredda 2019). In particular, I follow Dreon & Candiotto (2019) in thinking of affective scaffoldings as habits. As they rightly observe, the constant transaction between organism and environment, illustrated in section 2, is always emotionally charged and therefore bound to generate affective habits. Though the example of solastalgia is especially fitting, as it deals directly with the previous emotional implication of the organism-environment whole, I suggest that this model could be applicable to all forms of eco-trauma. Take the case of droughts, an increasingly common consequence of the climate crisis which a great number of studies link to anxiety, depression, as well as other mental health issues (Vins *et al*. 2015). After prolonged exposure to a drought, the psychological distress caused by the situation decreases, although other well-being factors such as life satisfaction also decrease (Luong *et al*. 2021). This could be interpreted, through the pragmatist framework presented here, as processes of habituation in which the warping of the environment calls for an adaptation, at the emotional level, of the organism. The Deweyan trans-

[3] Emphasis in the original.

action, one should keep in mind, is not a one-and-done exchange but a constant process of shaping, reshaping, and adapting. Habits do not simply form in accordance with the environment, but they constitute both the environment itself and the organism, up to the very psychological and physiological level (Sullivan 2015).

As mentioned before, however, being situated in nature and in society as a form of co-constitutive participatory cooperation only makes sense if understood in terms of an activity. Kałwak & Weihgold (2022), for example, lament that focusing exclusively on the personal therapeutic level of eco-emotion-related pathologies is an overall misguided attempt at individualistic solutions to a broader societal problem. The pragmatist approach, however, by establishing a continuity between the rational and the emotional and by emphasizing the action-oriented character of the latter, enables the political potential of eco-emotions, whose constitutive function is both detecting and eliciting change. Although the debate on the nature of populism often relies on the use of 'emotional' as a derogatory term representing the polar opposite of rationality, the emotional dimension of politics has also received much positive attention, as part of the so-called 'affective turn' (Nussbaum 2015; Massumi 2015). Of course, in a sense, every emotion is in some way political, as it is concerned with people's relationship with their environment and with others, thus influencing how individuals act. As seen in section 1, eco-emotions express in uninterrupted continuity both the attribution of biophilic intrinsic value to nature and the concern for the socio-economic problems caused by climate change (economic crises, forced migration, physical health risks, etc.).

Eco-emotions testify to the failure of patterns of habitual behavior. In the case of victims of some form of ecological disaster or extreme phenomenon (droughts, wildfires but also desertification or rising sea levels), habits malfunction as they lack the previously stable environment in which they were developed. Eco-emotions resulting from indirect experiences of the ecological crises (such as eco-anxiety or eco-depression), instead, derive from a forceful reconsideration of habits. Although there are still climate-change deniers and other forms of opposition to environmentalism, the widespread green awareness has made it so that deeply engrained and fully mechanized habits are now being questioned. Previously silent habits, which we would reproduce unattentively, now become loud because something has gone wrong with their execution (James 1890). Unexpected consequences of what is supposed to be a reliable behavior which we have internalized call for a re-framing of said behavior and a consequent re-adjustment of the whole organism. In the case of eco-emotions, they specifically detect the relevance of natural environments and resources for our ways of living, attributing to certain inattentive habitual behaviors the unseen feature of being 'ecologically relevant'. As a matter of fact, the environmental impact of each individual depends largely on habitual behaviors. Factors such as means of transportation, diet, waste production and management, recycling, water, and energy consumption, and general purchasing habits are all determinant climate-relevant habits (Abrahamse 2019; Verplanken & Whitmarsh 2021). Rather than thinking of environmentally consequential actions as the result of deliberative thought, one should frame them as routines ingrained in everyday life and connected to wider social practices (Kurz *et al*. 2014). For example, water consumption on the individual level is mostly associated with hygiene, which does not only refer to the health of the body but also to a social requirement and a social practice. As it turns out, however, it has also an important impact on the world around us, beyond those expected. And so, simple habits such as leaving the water running while brushing one's teeth or regularly buying fast fashion to stay up to date with the latest fad, become ecologically charged. This ecological awareness, which could be thought of as the habit of considering the ecological impact of the actions we take, often clashes with everyday life.

For these reasons, a major problem for anyone interested in promoting pro-environmental policies is how to transform habits. Emotions, due to their close relationship with habits, appear to be a promising candidate for this role (Petit 2021; Petit & Ballet 2021). Unfortunately, however, there is no clear-cut, mechanical formula to translate emotions into desired actions. The very ecological-transactional nature of habit makes it so that it is impossible to determine *a priori* how to transform it, without considering the specific situation which constitutes it. Nevertheless, we are still able to investigate the possibilities and the limits of the eco-emotional approach in order to find potential strategies to stimulate pro-environmental attitudes. In their pragmatist analysis of the so-called 'ecology of fear', Ballet, Bazin & Petit (2023) emphasize the importance of distinguishing between intense fear and moderate fear. Where intense fear, which is fueled by generic narratives of collapse, is a malfunctioning emotion because it is directionless and does not lead to action, moderate fear is purposeful, intelligent, and action-oriented. The latter, in fact, functions as a way of rationally assessing the situation with the precise objective of acting in some useful way. Negative emotions do not, simply by virtue of being negative, inhibit active interest in the issues of climate change, nor do they discourage people from changing their behaviors. On the contrary, research shows that negative emotions are as likely as positive ones to increase awareness of the climate crisis and willingness to act accordingly (Wong-Parodi & Feygina 2021). A violent burst of fear, however, might paradoxically lead to numbness and disinterest. For example, Pedwell (2017; 2021) points out that overexposure to dramatic images of suffering, while effective at first, may lead to 'compassion fatigue', for every repeat emotion, over time, starts to wither and lose intensity. If this is the case, emotionally shocking but ultimately transient communication strategies are destined to fail even if they attempt to evoke moderate fear. The sustained pro-environmental behavior necessary to have a lasting impact cannot be fueled by simple emotion-inducing processes, as emotional responses dwindle and fade away as time goes by (Schwartz & Loewenstein 2017). The solution to the problem of habit transformation may, instead, be found in habit itself, as "more enduring forms of sociopolitical transformation may emerge less through affective revolutions than through the accumulation, reverberation, and reshaping of minor affective responses, interactions, gestures, and habits" (Pedwell 2021, 132).

If we desire to harness the power of eco-emotions, I suggest we should think of ecological affective education as the development of a meta-habit sensitive to the world around us and its changes. By meta-habit, I mean a habit that is geared towards the reconsideration and, if necessary, transformation of other habits. Of course, it would mean finding ways to stimulate in this direction those who do not experience eco-emotions. On the other hand, however, it would also mean avoiding both the threat of desensitization and that of being overwhelmed by excessively intense feelings.

Conclusion

In conclusion, this paper has delved into the intricate realm of eco-emotions, exploring their multifaceted nature and the crucial role they play in shaping human responses to the ecological and climate crisis. By employing a pragmatist theoretical framework, inspired by the works of William James and John Dewey, I have argued that this perspective offers valuable insights into understanding and harnessing the potential for pro-environmental transformation inherent in eco-emotions. The analysis of eco-emotions highlighted their multilayered composition, encompassing moral, political, personal, and existential elements. The distinction between eco-emotions and climate emotions has been clarified, in order to provide a nuanced understanding of the emotional responses triggered by environmental challenges. Moreover, the examination of how geographical distribu-

tion influences eco-emotional responses has highlighted the contextual nature of these reactions. Building upon the pragmatist philosophy, which conceives emotions as inherently relational, situated, and action-oriented, this paper has proposed a framework that aligns with the ecological dynamics of eco-emotions. By recognizing emotions as active agents capable of influencing and changing climate-relevant habits, the pragmatist approach offers both theoretical and practical advantages in comprehending the complexities of eco-emotions. In the broader context of philosophical studies on emotions, the application of a pragmatist lens to eco-emotions has unveiled a promising avenue for further exploration. The insights gleaned from this analysis contribute to a deeper understanding of the interconnectedness between human emotions and environmental concerns, fostering a holistic approach to addressing the ecological and climate crisis. As we navigate the challenges posed by a changing climate, it becomes imperative to acknowledge the profound impact of eco-emotions on individual and collective behavior. By integrating the pragmatist framework into discussions on the psychological dimensions of the ecological crisis, we can pave the way for informed and actionable strategies that leverage the transformative potential inherent in human emotional responses. Ultimately, this paper advocates for an ecological perspective on emotions, urging us to consider the complex interplay between human feelings and environmental issues as a tool to modify existing climate-relevant habits.

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