

# Climate Change and Anti-Meaning

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#### Abstract

In this paper, we propose meaningfulness as one important evaluative criterion in individual climate ethics and suggest that most of our greenhouse gas emitting actions, behaviours, and lives are the opposite of meaningful: anti-meaningful. We explain why such actions etc. score negatively on three important dimensions of the meaningfulness scale, which we call the agential, narrative, and generative dimensions. We suggest that thinking about individual climate ethics also in terms of (anti-) meaningfulness illuminates important aspects of our troubled ethical involvement with CC and can make a fresh and fruitful contribution to existing discussions, which tend to focus on moral responsibility and obligations.

**Keywords** Meaning in life · Anti-meaning · Climate change · Agency · Narrativity · Generativity

### 1 Introduction

In this paper we propose meaningfulness as one important criterion for the ethical evaluation of our individual greenhouse gas (GHG) emitting actions. We also argue that most of these actions are the very opposite of meaningful: anti-meaningful.

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In § 2 we frame our proposal within the larger debate on individual climate ethics. In § 3 we present the notions of meaning and anti-meaning. In § 4 we explain why most of our climate altering actions are anti-meaningful. In § 5 we offer some concluding remarks.

### 2 Individual Climate Ethics

Climate change (CC) is bad. It will harm, kill, and burden millions of people present and future; extinguish species and ecosystems; wipe out vast portions of humanity's cultural heritage; take a heavy toll on our biology and psychology; destabilize our ecological, social, cultural, economic, and political systems in possibly irreversible ways; and ultimately cripple the human trajectory on Earth. Many find this unjust, too - in various ways, for many reasons, and towards a very diverse and spatiotemporally diffused crowd of victims. Many also agree that all those who contribute to CC with their emissions bear a collective moral responsibility for it and the badness and injustice it mobilizes.

A further issue is whether such collective responsibility can be partitioned in principled ways to attribute emitters with individual moral responsibility as well, possibly (and plausibly) in proportion to the magnitude of their individual contribution, or 'climate footprint'.¹ This is an arduous step to make for at least the following reasons: (a) the global rise in temperatures is not a linear outcome of the mere sum of individual climate footprints; (b) the specific instances of badness and injustice that CC mobilizes are not linear outcomes of rising temperatures; (c) no specific instance of CC badness or injustice is a linear outcome of any specific individual climate footprint, so that being causally responsible for the footprint does not imply being causally responsible for a bad and/or an injustice; d.) nobody intends to bring about CC nor the badness and injustice that it mobilizes; e.) there currently seem to be no alternatives to many of the GHG-emitting actions that each of us performs as we go about our days; f.) even if such alternatives were found and we each lived climate-neutral or even climate-negative lives from this moment on, CC would still occur and mobilize great badness and injustice.

All this complicates the idea that as individuals we do something morally wrong (i.e. bad, unjust, or vicious) when we drive a car, take a plane, eat high on the food chain, or engage in other GHG-emitting activities. Even if in doing such things we are all contributing to CC, and so may well be held collectively responsible for it, it does not smoothly follow that we are individually responsible too. If we are not, then arguably we have no individual moral obligation to refrain from driving etc.

Some philosophers argue that we indeed have no such obligation, while also maintaining that we do have an obligation to take anti-CC political action (Johnson 2003; Sinnott-Armstrong 2005; Aufrecht 2011; Cripps 2013). Others respond that integrity (Hourdequin 2010) and consistency (Hedberg 2018) demand that the pursuit of anti-CC political action be accompanied by the acceptance of an obligation to minimize one's own individual climate footprint. Others yet argue that individuals have an imperfect duty both to reduce their emissions and to press governments to introduce proper regulation (Baatz 2014). Some

 $<sup>^{1}</sup>$ A climate footprint is a measure of the total amount of carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF<sub>6</sub>) emissions of a defined population, system or activity, considering all relevant sources, sinks, and storage within the spatial and temporal boundary of relevant emitter(s) (Wright et al. 2011).



maintain that we can permissibly perform GHG-emitting actions provided we offset them (Broome 2012). And some argue that the individual moral obligation one has is that of developing and exercising a climatically virtuous character (Jamieson 2007).

Others insist that we do have individual moral obligations not to drive etc., because our individual climate footprint directly harms others (Nolt 2011), increases the probability of harms (Hiller 2011), may push the climate system beyond some morally relevant threshold (Almassi 2012), or shows a failure in exercising a well-grounded duty of due care (Vance 2016). It has also been argued that collective responsibility can be reduced to individual responsibilities by separating the eligibility for responsibility from its attribution (Banks 2013), or by conceiving of these responsibilities as mediated (Attfield 2009). Some have largely dropped the language of obligations and counseled climatic virtues on eudaimonic or other grounds (Gardiner 2011; Thompson 2012; Williston 2015). Others yet explore axiological arguments focused on the values that CC could wipe out from our planet and undermine in our lives (Scheffler 2018).

These approaches have matured to high degrees of sophistication. All have notable strengths and weaknesses, diffusedly exposed by their proponents and opponents (Fregnière 2016). Our aim here is not to adjudicate among them. We simply observe that no philosophical consensus has been reached on how to frame and handle the question of our individual involvement with CC. That offers an opportunity, or perhaps even signals a need, to enrich the terms of the conversation.<sup>2</sup>

Here, we propose a different evaluative criterion for individual climate ethics—that of meaningfulness. We need not deny that there might indeed be moral obligations not to drive etc. - but to make our points starker, we will proceed on the assumption that there are not (or, which is the same for present purposes, that individual driving etc. need not be morally bad, unjust, or vicious). We then ask: is there a way to account for the ethical uneasiness that many of us (at least those aware of and concerned about the facts and threats of CC) nonetheless do feel when doing such things? Even if there was nothing morally wrong with individual driving etc., there still seems to be something ethically off with it: something that, while perhaps not obligating us to do anything for others, does signal that our own lives, our individual ethical projects of living well, are being in deep ways impoverished by our being contributors to CC.<sup>3</sup>

We submit that our GHG-emitting actions, behaviors, and lives score negatively on the meaningfulness scale. They may or may not be bad, unjust, or vicious - but anti-meaningful they are, and that is something that is ethically off with them. In confronting our predicament as contributors to CC, then, we should also be responsive to reasons, and engage in

<sup>&</sup>lt;sup>3</sup> The distinction between "morally wrong" and "ethically off" signals that we, as most meaningfulness theorists do, subscribe to the view that morality is the other-regarding, obligation-speaking department of ethics more generally understood – the "do-onto-others" focus group in the larger "living well" office of practical reason(s). Familiar reconstructions have it that modern philosophy has tended to reduce ethics to morality. Typically, such reconstructions have been provided by contesters of the reduction, including E. Anscombe, B. Williams, A. McIntyre, S. Cavell, J. McDowell, H. Frankfurt, S. Blackburn, and others.



<sup>&</sup>lt;sup>2</sup> We are here subscribing to the idea that one legitimate business of philosophy is so-called "conceptual engineering" – the assessment of concepts in reference to changing circumstances, along with proposals for possible improvements, and efforts at implementing such improvements (Plunkett and Cappelen 2020). The suggestion that traditional moral concepts are profoundly challenged by, and may in some cases even be unfit for, a quantitatively and qualitatively unprecedented phenomenon like CC has been authoritatively advanced by Gardiner (2011) and Jamieson (2014).

practices, that pertain to the project of, and our concern with, living positively meaningful lives.

# 3 Meaning and Anti-meaning

Most people place a high premium on living a meaningful life. As some put it, our time on Earth is short: we should not waste it in meaningless ways (Kass 2017).

Different things can be regarded as more or less meaningful: whole lives, aspects or parts of lives, activities (jobs, hobbies, etc.), relationships (with particular people, animals, plants, places, or abstract entities like nations or gods), particular actions, and more. These are all possible objects of meaningfulness appraisals.<sup>4</sup> Henceforth, we refer to all of them with the (admittedly rough) formula "actions etc."

Philosophers disagree over what it is for actions etc. to be meaningful. Some emphasize the subjective experience of meaningfulness (Taylor 1970; Luper 2014), others the property of meaningfulness as possessed by the objects of experience (Bramble 2015). Hybrid views include both subjective and objective elements (Wolf 2010). Yet, despite such significant theoretical differences on a meta-ethical level, on a substantive level most accounts tend to cluster around some shared conceptions of what makes actions etc. meaningful. Here are three recurring ideas.<sup>5</sup>

First, there seems to be an *agential dimension* to meaningfulness. Actions etc. are typically considered meaningful if they bear some important relation to one's own choices and efforts and are in some way expressive of oneself. Being passively fed with some light form of entertainment is usually seen as less meaningful than being actively engaged in some pursuit of one's own design (Nussbaum 2004). Part of what may confer meaning to such active engagement is also the development of skills enabled and required by an ever more refined furthering of the pursuit, as well as the identitarian relevance that such pursuit may come to have in one's life (MacIntyre 1981).

Second, there seems to be a *narrative dimension* to meaningfulness. Actions etc. are typically considered meaningful if they tend to be positively inspirational, or part of some positively inspirational story (Kauppinen 2015). Whether an action etc. makes for a positively inspirational story depends on both the 'how' and the 'what' of that story. Actions etc. are narratively meaningful insofar as they exemplify valuable modalities of pursuit – like

<sup>&</sup>lt;sup>5</sup> We simply register what most accounts seem to include as important dimensions of meaningfulness. In what follows, we will use the resulting picture as our working framework, but with no suggestion that the picture be theoretically resolved nor complete. There may be more (or fewer) dimensions to meaningfulness; and indeed, it is an open question (relevant also to the debate just evoked in note 4) even if these dimensions (or some of them, or others) should be conceived as dimensions of meaningfulness (as we do here) or rather requirements for meaningfulness (as others often seem to do, at times implicitly). In addition, there may be other ways to articulate the dimensions we discuss. For example, Kekes (2000) and Edwards (2000) articulate what we call the narrative and generative dimensions in ways very different from ours; while Ayer (1990), Calhoun (2018), Frankfurt (1982), and others propose value-neutral pictures of meaningfulness, unlike the one we piece together here. We appreciate that some of our concerns and reasonings in this paper may look less urgent or even misguided to subscribers to these (and other) pictures of meaningfulness. Nonetheless, the picture that we will work with remains representative of widely held views that occupy central territories in the literature.



<sup>&</sup>lt;sup>4</sup> The debate on what the proper objects of meaningfulness appraisals can be is currently evolving in innovative, even radical ways – for a recent example, see Stevenson (2022) "Anything Can Be Meaningful", in *Philosophical Papers* (online).

resoluteness, creativity, sophistication (May 2015) - of valuable goals – like beauty, justice, general happiness, knowledge (Wolf 2010; Metz 2013). For example, Nelson Mandela's resolute quest for racial equality and political justice in South Africa is narratively meaningful: it exemplifies valuable modalities of pursuit of valuable goals and inspires others.

Third, there seems to be a *generative dimension* to meaningfulness. Actions etc. can be concretely generative of valuable developments, such as the achievement of valuable goals or the promotion of their pursuit (Singer 1996; Bramble 2015). "Being generative" includes but is not restricted to "causing": actions etc. can be generatively meaningful not just in a mechanistic sense, but also more generally when they afford (or portend/invite/enable/reinforce) the achievement or strengthened pursuit of valuable goals. In this sense, something is generatively meaningful if it leaves a positive legacy. A legacy can, but need not, be positive in specifically moral terms, as other terms are relevant to meaningfulness as well – including, among others, the aesthetic and epistemic (Metz 2013). Morally dubious lives that are generative of beauty, like Rimbaud's, or knowledge, like Heidegger's, can still be very meaningful lives.<sup>6</sup>

Many agree that the pursuit of something larger than oneself that is generally valuable is a primary source of meaning in life (Seligman 2010; Wolf 2010; Metz 2013). Moral goodness, knowledge, or beauty are examples of generally valuable goals. Because these goals are not exclusively self-regarding, tend to be hard to both attain and maintain, and are in important senses always open-ended, actions etc. that qualify as generatively meaningful tend to have broad, long-term affordances. In contrast, actions etc. that only take narrow, short-term concerns into account, and afford little that lasts, seem less meaningful.<sup>7</sup>

Now on to anti-meaningfulness. Some argue that to evaluate actions etc. in terms of meaningfulness, it is not enough to only distinguish between the meaningful and the meaningless. We typically use the term 'meaningful' to express a positive evaluation and 'meaningless' to express a negative evaluation. The negativity we express with 'meaningless' refers to the absence of meaningfulness, to the object of evaluation not mattering in some (or all) relevant sense(s). Yet 'meaningless' does not cover what matters in negative ways. For that, a notion like 'anti-meaningfulness' seems more apt. Actions etc. might not be meaningful in any positive sense, but may not be meaningless either: they may be negatively meaningful (Metz 2013; Landau 2011; Smuts 2013), or anti-meaningful (Campbell and Nyholm 2015; Nyholm and Campbell 2022):

[W]hat if a life does not merely lack meaning but is characterized by the presence of a directly opposing evil? [...] Anti-meaning is not the mere absence of meaning in the way that meaninglessness is. Rather, it is the negative polar opposite of meaning, just

<sup>&</sup>lt;sup>7</sup> This is not to suggest that consideration for the generally valuable is in contrast with the pursuit of the individually valued – that is, one's own welfare. Indeed, empirical research suggests that this sense of being part of something 'bigger than oneself' is seen by most as a central component of individual welfare (Seligman 2010).



<sup>&</sup>lt;sup>6</sup> Actions etc. are not necessarily made morally good by their being meaningful. They may often be made meaningful by their being morally good, but there is no necessitation there either. For example, being honest with family, friends, and partners may be the morally good thing to do, and yet there may be many cases in which doing so may be anti-meaningful, by poisoning the air and leading to resentments and fallouts. Arguably, even moral perfection (or the search thereof) may sometimes be anti-meaningful: for example, if morality overtakes one's agency in the ways famously discussed by B. Williams.

as evil, harming, and ill-being are the negative counterparts of good, benefiting, and well-being (Campbell and Nyholm 2015: 695).

Consider some examples. In 1986, Gerard van Balderen slashed Barnett Newman's painting Who's Afraid of Red, Yellow and Blue III in Amsterdam's Stedelijk Museum. He vandalized another painting of Newman's, Cathedra, in 1997. At least to those who consider Newman's paintings meaningful, van Balderen's acts of vandalism will seem (not meaningless but) the very opposite of meaningful – anti-meaningful. If (at least some) art expressions are meaningful, then to destroy them is anti-meaningful.

Consider next the meaningfulness of relationships, and a person who eludes intimate social contact because he places an unusual amount of critical attention on the behavioral quirks of others - for example the sounds they make when they laugh, or how they eat their salads or keep their nails. He just cannot "pass over the small things", and thus never manages to engage with anybody beyond small talk, missing out on the meaningfulness of intimate social contact. He does so for meaningless reasons, one could say, but that he does so is not itself meaningless: avoiding the very possibility of meaningful social contact is one of the surest ways to impoverish one's life. It is negatively meaningful.

Take now Rimbaud's case. After creating what is generally esteemed to be hugely meaningful poetry, he gave up the art very young, possibly suffocating his best talent, and likely depriving the world of vast amounts of future meaningfulness. That was anti-meaningful. He also became a slave trader. That was immoral. But note how neither of these judgments needs the other to be true. Even if Rimbaud had picked up gardening rather than slave trading, his repudiation of poetry would still count as anti-meaningful. And the immorality of his slave trading is not redeemed by the meaningful poetry he wrote. The case is interesting because what should be measured on the meaningfulness scale can be clearly distinguished from what should be measured on the morality scale, as Rimbaud's poetry (and repudiation thereof) never intersected his slave trading: he did not give up poetry to become a slave trader, nor did he ever write while or about slave trading.

Next, a couple of cases where (anti-)meaningfulness and (im-)morality do intersect. After doing all my due diligence, I donate to a highly reputed charity. A week earlier, however, through a complex round of sponsorship agreements, the charity had effectively been hijacked by an international criminal organization promoting human trafficking. I thus financed an immoral cause. But I was genuinely and excusably in the dark when I did, so that it is hard to judge my donation immoral – yet it is anti-meaningful: my agency was appropriated by others, my story is dis-inspiring in various ways, and I promoted badness, injustice, and viciousness with my (nonetheless morally permissible) donation. Structurally similar reasoning may apply to other cases of *force majeur* – for example killing in self-defence.

<sup>&</sup>lt;sup>8</sup> The case is also revealing of an important, and controversial, feature of the picture of meaningfulness that we are working with. On such a picture, meaningfulness assessments also take account of missed opportunities for meaningfulness, and count as anti-meaningful the decisions, actions, and events/states of affairs that cause such opportunities to be missed, by the agent and/or others. While aligning with widespread intuitions (wasting one's talent is a negative, not a neutral thing; there is an opportunity cost in passing on a hike with friends to stay home and watch TV; had Jimi Hendrix not died at 27, or the Beatles broken up in 1969, great music would have been produced that never was), this feature introduces complications of various sorts (including the need for counterfactual reasoning, probabilistic accounting and discounting, and precise cataloguing of the stakeholders involved) that we cannot engage here.



I. Landau (2011) discusses a more extreme example of intersection between (im-)morality and (anti-)meaningfulness. He correctly notes that to describe Hitler's actions etc. as (if not meaningful, then) 'meaningless' seems wildly incorrect. Surely, these actions etc. had some meaning - and everyone but Nazis would say that their meaning was negative. Such a judgment would mostly be grounded on the catastrophic moral horror that Hitler's actions etc. generated. For moral badness can be, and often is, part of what makes somebody's actions etc. anti-meaningful. On the flipside, acting in ways that are morally good can be part of what makes somebody's actions etc. positively meaningful.

As noted, however, moral goodness and badness are not all that matters to meaningfulness evaluations, because morality is not the only source of meaningfulness in life. Indeed, it is easy to point out ways in which Hitler's actions etc. were anti-meaningful besides being immoral: they entailed the destruction or disappearance of vast amounts of cultural objects and heritage; relied on, and further powered, epistemically ungrounded and limiting intellectual horizons; expressed rather dark forms of nihilism; trivially built identity on difference; reduced the art of politics to the exercise of ideological power, etc. These sources of anti-meaningfulness are independent from and complement the moral ones. That there are also (im-)moral sources of (anti-)meaningfulness (however more salient they may be thought to be, in Hitler's as well as other cases), does not mean that (im-)morality and (anti-) meaningfulness coincide.

(Im-)morality does participate in (anti-) meaningfulness evaluations, but the latter do not reduce to moral evaluations - for meaningfulness has its sources in all sorts of factors, domains, reasons, and practices that pertain to the general enterprise of making one's actions etc. matter, or count, in the agential, narrative, and generative senses mentioned above (Calhoun 2018). These factors, domains, reasons, and practices are not only moral, but also aesthetic, epistemic, ideational, spiritual, identitarian, professional, and more (Landau 2017). <sup>10</sup>

<sup>10</sup> The relation between meaningfulness and morality is extremely complex. Being pivotal to the demarcation of meaningfulness as an independent evaluative scale, it is widely debated in the literature. The basic question is whether morality matters to meaningfulness at all. Most theorists believe that it does (but see Ayer 1990, Calhoun 2018, Frankfurt 1982, Sartre 1946 for value-neutral views. See also Kekes 2000, and Edwards 2000, where the relevance of morality to meaningfulness is denied on grounds of metaethical subjectivism about meaningfulness. One can also think of Nietzsche, Stirner, and Rand - among many others - as affirming that morality is substantively and directly opposed to meaningfulness - that is, anti-meaningful). Significant disagreement arises with regards to the questions of how morality matters (it may be necessary to meaningfulness, or sufficient, or both, or neither but still contribute to it); and (an issue more rarely discussed) how much morality it takes for morality to matter to meaningfulness (does lying to one's spouse about quitting fat foods diminish the meaningfulness of an otherwise committed, happy, reciprocally empowering marriage?) The position one takes on these controversies will also depend on various other factors, including whether one is a meta-ethical subjectivist or an objectivist about meaningfulness and/or about morality; the substantive meaningfulness theory that one endorses; the substantive moral theory that one endorses; the scope one believes morality to have (does it extend to regulate partiality-based special relationships? Do duties to oneself exist?); the relevance one assigns to morality, and to meaningfulness, to the good life more generally - and more. We cannot provide a full-fledged treatment of any such deep and intricate issues here - nor can we deny their importance. Like most meaningfulness theorists, we believe that morality matters to meaningfulness but still do not see the two as coincident, being responsive to only partially overlapping reasons and expressed through only partially overlapping practices. And we see both as relevant to the larger enterprise of living well - that is, to ethics more broadly understood. In fact, the substantive, tripartite picture of meaningfulness that we have been working with has structural assonances to fundamental moral concerns: agency (a pivot of deontological morality), self-satisfaction and exemplarity (pivots of virtue ethics), and consequences



<sup>&</sup>lt;sup>9</sup> Metaethical subjectivists about meaningfulness may also consistently need to be less *trenchant* – see Kekes (2000: 30) and Edwards (2000: 144).

All that said, let us move on to CC.

# 4 Climate Change and Anti-Meaning

Our GHG-emitting actions etc. score negatively on the three dimensions of meaningfulness described in § 2: the agential, narrative, and generative dimensions. 11 Let us look at each in turn.

### 4.1 The Agential Dimension

When reflecting on CC, it is helpful to think of most actions we perform as we go about our day - driving cars, heating homes, eating meals, etc. – as having two lives (Di Paola 2017; Jamieson and Di Paola 2021). They have an episodic life, happening when these actions occur, which we own because it is under our control and furthers our goals. But they also have a systemic life: when I drive etc., I employ and reinforce a whole infrastructure of provision that presides over the global procurement and distribution of goods and services, whose fossil fueled workings pump GHG into the atmosphere. Contemporary infrastructures of provision (energy, food, transports, information, etc.) are currently all fossil-fueled and thereby engender spatiotemporally unbound badness and injustice via CC. When I drive, I become involved in these infrastructures and the attendant global networks of eco-altering financial interests, political agreements, and avenues of cultural reinforcement (Di Paola 2015).

The systemic life of my actions escapes my agential jurisdiction entirely. <sup>12</sup> It is not under my control, and realizes no goal of mine, or indeed anybody's: it rather realizes the "non-

(the province of consequentialism). In this sense, it is a moralized theory of meaningfulness – but, crucially, it refers and responds also to non-moral factors, domains, reasons, and practices. For an orderly and insightful discussion of the relation between meaningfulness and morality, see Kipke & Rüther 2019.

<sup>11</sup> Our GHG-emitting actions etc. happen to be anti-meaningful along all three dimensions. Generally, however, actions etc. need not score negatively on all dimensions at once for them to count as anti-meaningful. On the picture of meaningfulness that we are working with, meaningfulness evaluations require some accounting that keeps score along the three dimensions (agential, narrative, and generative) and then produces an all-things-considered assessment that tracks all cross-dimensional additions and subtractions. Accounting models of meaningfulness evaluation are widespread in the literature - but see Scripter 2023. Also note that the independence of dimensions (and the fact that they are dimensions not requirements), makes the picture of meaningfulness that we are working with compatible with the possibility that nonhuman entities, processes, and systems (whose scores on the agential and narrative dimensions may be low or null) could have positively meaningful existences overall (see Stevenson 2022). If that was the case, then a congenial climate would arguably have a hugely meaningful existence, being a necessary condition (and in such sense generative) of most of the human and much of the nonhuman meaningfulness to be found on Earth (at least since the last glacial period ended, some 12.000 years ago). That would reinforce the notion that being involved in changing that climate be anti-meaningful.

<sup>12</sup> The influence and control that an individual has over her emissions are often classified by "scopes". Scope 1 refers to direct emissions from owned or controlled sources; Scope 2 refers to indirect emissions from the generation of purchased energy electricity, heat and steam; Scope 3 refers to all indirect emissions (not included in scope 2) that occur in the value chain of which the individual is a terminal or node, including both upstream and downstream emissions (Farsan et al. 2018: 8; Word Economic Forum 2021). The episodic is the level at which Scope 1 emissions are produced, while the systemic is home to (in most cases) Scope 2 and (in all cases) Scope 3 emissions. Scope 3 emissions are obviously those over which individuals have least, indeed none, influence and control; Scope 2 emissions are also typically beyond individual influence and control, though they may in principle be progressively absorbed into an individual's practical jurisdiction as



goal" of changing the world's climate. Yet the systemic life of our actions is every bit as real as their episodic life: CC would not occur without all these cars being driven, planes being taken, etc. To that extent, none of us is off the hook: given our episodic agency, the systemic life of our actions produces outcomes of which none of us is simply a victim.

The fact that my actions etc. also have a systemic life over which I have no control but which, initiated by me, ends up contributing to great badness and injustice via CC, corners me in an ethically uneasy position. I just wanted to heat my house or get to work, but my actions etc. also do something else. My actions never realize my goals only, but always also contribute to the systemic non-goal of changing the world's climate; and there is seemingly nothing I can do to keep these actions "on track", climatically speaking. My agency is thus hijacked, and undermined. Call this the ethical problem of agency loss. In a globalized, fossil-fueled world in which GHG-emissions are weaved into the fabric of everyday life, we all have this problem.

Agency loss is a self-regarding ethical problem. If my GHG-emitting actions etc. are also morally wrong in other-regarding terms, then I have a larger set of problems. But the problem of agency loss does not go away if they are not. And, in meaningfulness terms, to lose agency is crippling: it is to step into a practical realm of passivity, becoming a locus for the expression of external forces rather than oneself. That is anti-meaningful even when these forces conjure up to realize positive, morally untainted goals that one shares. The meaningfulness of reaching those goals is diminished if the score on the agential dimension is low or negative.

For example, an athlete who twists her ankle at the start of the Olympics, and watches her team win from the benches, will receive the gold medal but likely find that victory less meaningful than if she had been able to contribute to the team's efforts too. What makes the victory less meaningful is her loss of agency due to the injury. That injury is not morally wrong in any recognizable sense, and yet it is anti-meaningful: by disabling her agency, the injury subtracts meaningfulness from her victory. In the case of one's contribution to CC, where only non-goals that no-one shares accompany agency loss, there's no victory whose positive meaningfulness can redeem the anti-meaningfulness of agency loss.

It may be suggested that even if (anti-)meaningfulness and (im-)morality can be clearly distinguished, the picture depicted above in (anti-) meaningfulness terms could and should still rather be painted in moral terms, the morally applicable concept being that of complicity (May 1992; Kutz 2000). Perhaps agency loss is anti-meaningful indeed, but that is not what is really going on in the case of CC. Rather, by driving etc. we are channeling our agency into a wrong, unjust, or vicious collective endeavor, and that makes us morally faulty accomplices of that endeavor and its outcomes, regardless of the control that each of us exercises over the endeavor itself or the difference one makes in producing its bad outcomes. The source of moral fault, according to Kutz (2000: 138), is that "intentional participation in a collective endeavor directly links [them] to the consequences of that endeavor".

However, the distinction between the episodic vs. systemic life of our actions etc. was meant to underline that the collective "endeavor" of changing the climate happens at a level, the systemic, at which our agency is hijacked. None of us is intentionally participating in collectively changing the climate. What each of us is intentionally doing is rather performing many episodic individual actions like driving etc. It is only at the systemic level that

renewable energy services become more robust, renewable energy itself becomes cheaper and more reliable, and energy and financial markets are opened to new players (all system-level changes).



changing the climate becomes a collective affair to which we each contribute; and at that level our intentions - active at the episodic level and directed at other things entirely – no longer play any role.  $^{13}$ 

#### 4.2 The Narrative Dimension

Actions etc. are narratively meaningful insofar as they exemplify valuable modalities of pursuit – like resoluteness, creativity, sophistication (May 2015) - of valuable goals – like beauty, justice, general happiness, knowledge (Wolf 2010; Metz 2013). Such actions etc. are positively inspirational. Actions etc. that are negatively inspirational are narratively antimeaningful. Most people would agree that alleviating or at least not worsening CC is a valuable goal; there is then at least three ways in which individual GHG-emitting actions etc. can be narratively anti-meaningful.

First, they may exemplify dis-valuable modalities of pursuit of the valuable goal of alleviating or at least not worsening CC. For example, I value climate congeniality, but I am inconsistent in that I still routinely drive, etc. Such gaps between my avowed climatic values and my actions may signal some lack of integrity on my side – which may, at least in some circumstances, be morally faulty (Hourdequin 2010; Hedberg 2018). If In such circumstances, the issue may be dealt with in moral terms: I should not be a hypocrite (Hourdequin 2010: 448). But insofar as integrity/consistency are also valuable modalities of pursuit of one's valuable goals, and thus contribute to narrative meaningfulness, those actions etc. that exemplify lack of integrity and inconsistency (besides possibly being immoral in some circumstances) are also narratively anti-meaningful. The story they tell is an internally jagged one of self-misalignment, of a lack of structural composure the dissonance of which may impose costs on oneself: for example, troubled climate emotions such as a sense of inadequacy (Verlie 2019) and/or shame (Orange 2017; Aaltola 2021)<sup>15</sup>; or a troublesome descent into self-absolutory patterns of rationalization (Gardiner 2011).

Here is a second way in which my GHG-emitting actions etc. are narratively anti-meaningful. I live in a world that offers a wide range of opportunities for meaningfulness. Yet many of these opportunities are either fossil fueled, or they are not. To pursue natural or artistic beauty I might have to fly to other countries to visit certain reserves or museums. To pursue knowledge I might have to use a computer, have books shipped from different

<sup>&</sup>lt;sup>15</sup> In a recent global survey (Hickman et al. 2021), 46% of the young respondents reported feeling 'ashamed' because of CC.



<sup>&</sup>lt;sup>13</sup> Perhaps each of us is an accomplice because, by performing these episodic actions that also have a systemic life, each of us benefits from, while reinforcing rather than resisting, the infrastructures and networks operating at the systemic level. On this picture, what is wrong, unjust, or vicious is not our episodic actions etc. but our acquiescence to infrastructures and networks that enliven such actions with a second, climatically pernicious systemic life. This picture is probably as close as a moralized picture can get to a meaningfulness-based one. However, while the moralized complicity picture ultimately needs to assume that individuals can withdraw their acquiescence to the fossil-fueled circumstances obtaining at the systemic level, the meaningfulness picture need not make that assumption – and is indeed partly motivated by the very implausibility of making it, at least with reference to the concrete circumstances of most people. We must, however, leave this important point to another occasion (see Vanderheiden 2011 for a wide-ranging background discussion).

<sup>&</sup>lt;sup>14</sup> The circumstances in question are, for both Hourdequin and Hedberg, a prior acceptance of a moral obligation to engage in political action against CC, from which a moral obligation to minimize one's own climate footprint would follow as a matter of integrity/consistency. It is not entirely clear what would become of that obligation absent the prior commitment to political action – although, in closing his article, Hedberg gestures at a possible opposite route, from moral integrity/consistency to political commitment.

continents, and follow presentations projected on screens in rooms artificially heated or cooled. To pursue moral goodness, I will fund and campaign for the right to development of peoples, even though, as things stand, that development is bound to come at the cost of increased GHG emissions. In pursuing my own, that of my loved ones, and even general happiness, I will in most cases be emitting GHGs, or consuming goods and services that embody emissions, or directly or indirectly investing in projects that require them.

My goals are valuable, and a consistent, creative, sophisticated, etc. pursuit of them may be narratively meaningful as far as it goes – but there is narrative anti-meaningfulness in the fact that such pursuit comes with an emission tag, that there is nothing I can do about that, and that there are mostly no alternatives to the GHG-emitting actions etc. that I perform. With that in mind, these meaningful pursuits, however valuably pursued, become part of a less inspirational story, and thus lose some of their narrative meaningfulness. I could, of course (and perhaps, out of integrity/consistency, I should) renounce or reduce my fossilfueled pursuits of knowledge, beauty, happiness, etc. - but that way I'd likely be erasing opportunities for meaningfulness from my life. Ultimately, I'll lose out, in meaningfulness terms, whichever way I go.

That may not erase my duties of integrity/consistency: I can and should still try and emit less than I currently am (Hedberg 2018). In addition, there will be narrative meaning-fulness in doing so: I will pursue my climatic goals more valuably, and I will reduce the anti-meaningfulness that my other valuable pursuits need to be discounted for on grounds of their being climatically disvaluable. What I need is clear: the ability to pursue my valuable goals without emitting. I will do all that I can to earn that ability: install solar panels, buy an electric car, offset my flying, switch to a plant-based diet, etc. And I will soon learn that none of that is emission-free either. The very online transfer that finances climatically remedial tree-planting also feeds the fossil-fueled infrastructures that constitute and power the physical grid, the digital web, the money circuits, etc. I will emit even to finance GHG sequestration; and my plant-based diet, my solar panels, batteries, electric car, etc. will all embody emissions. For all I can do, a very great deal of my ability not to emit depends on the configuration at the systemic level; and that level still runs on fossil fuels - and will keep on so running until scalable technologies are found that can substitute the dense, storable, reliable power of fossil fuels.

I thus learn my constitutive embeddedness in the planetary techno-geophysical systems that change the climate; and the overwhelming power that these systemic, interlocking forces, structures, and circumstances have not just over what I do, but also over what I can even hope of doing. How actions etc. — even when I do exercise integrity/consistency—speak of the configuration of external forces and circumstances (including ecological and technological limits) more than they speak of my values, beliefs, desires, choices, and other pillars of practical reason. The narrative anti-meaningfulness of my GHG-emitting actions etc. lies also here—in the arresting recognition that the extremely inspiring modernist, humanist, individualist story (and its liberal political appendix) that painted me as the owner of my actions etc. is not, at least when it comes to CC, fully credible. After centuries of modernity and its contributions to individual autonomy and powers, I learn the vertiginous

<sup>&</sup>lt;sup>16</sup> Hickman et al. (2021) also report that 56% of respondents claimed feeling 'powerless', and 51% 'help-less', in relation to CC.



extent to which 'things' (the impersonal structures, forces, circumstances, and limits that configure the systemic level) are actually in control.<sup>17</sup>

#### 4.3 The Generative Dimension

If we accept the oft-made suggestion that meaningfulness has to do with contributing to something "bigger than oneself" that is valuable, it is clear why our GHG-emitting actions etc. should be generatively anti-meaningful. By contributing to CC and related badness and injustice we contribute to something that is "bigger than ourselves" – of no less than planetary proportions, epochal import, and possibly pan-generational consequence – but is greatly dis-valuable.

Driving my car may not cause CC and the badness and injustice that it mobilizes, but by contributing to it these actions etc. do afford/portend/invite/enable/reinforce a trend towards that badness and injustice. With my GHG-emitting actions etc., I help the human trajectory on Earth take a turn for the worse. I am among those who change the planet's climate: what each of us leaves behind, what each of our lives will have generatively meant, will also be that.

GHG-emitting actions etc. are generatively anti-meaningful not only on account of their loads of GHG. By sponsoring the fossil-fueled infrastructures of provision and attendant global networks of eco-altering financial interests, political agreements, and avenues of cultural reinforcement, my actions etc. also reinforce their systemic entrenchment. As these structures and networks consolidate - with each smartphone charge, or online transaction - they colonize and shape our lives, economies, and politics ever more deeply. My anti-meaningful legacy is thus not just a hotter atmosphere, but also structural conditions and path dependencies that risk making revisions and reforms increasingly harder to achieve (or even conceive).

The generative anti-meaningfulness of my GHG-emitting actions etc. may give rise to a diffuse form of regret. <sup>18</sup> I know that each of these actions etc. is a mode of a downward trajectory that involves great badness and injustice, as well as a reaffirmation of the systemic forces and structures that drive that trajectory. I also know that whatever my GHG-emitting actions etc. generatively mean at the episodic level, and however positive their meaningfulness there, they mean something entirely different and generatively very negative at the systemic level. I may generate great meaningfulness through my pursuits in life, but that will be diminished by the anti-meaningfulness of my involvement with the downward trajectory driven by CC.

The fact that the causal links between my driving (or indeed my whole lifelong climate footprint) and the badness and injustice that CC mobilizes are broken and ultimately unreconstructible; that I do not intend any badness and injustice by driving, etc.; and that most of the story to be told about my involvement is about the systemic circumstances in which I act and not about my own episodic actions etc. – none of that cancels the generative anti-

<sup>&</sup>lt;sup>18</sup> On the philosophy of regret see Nussbaum (2017), Wallace (2013), and Rorty (1980). A recent account of regret in connection to meaningfulness is in Scripter (2023), though Scripter focuses on the more moralized notion of remorse, which he distinguishes from regret in that the latter but not the former necessarily relates to actions etc. that involve significant and irreparable harm, particularly to others.



<sup>&</sup>lt;sup>17</sup> On these themes see Jamieson and Di Paola (2016, 2021). The cultural disorientation in question is often conceptualized as an element of a "climate trauma" – see Craps (2020), Woodbury (2019), Zimmermann (2020).

meaningfulness of my actions etc., nor is necessarily enough to extinguish the related regret that I feel. <sup>19</sup>

# 5 Concluding Remarks

Our aims in this paper were primarily to underline how the formidable experience of being personally involved in the transformation of a planet also cashes out in terms of meaning-fulness, and to explain why our individual bottom lines on that front are mostly negative: anti-meaningful.

If our analysis is correct, the meaningfulness of our lives is under strenuous attack in a warming world regardless of whether our individual GHG-emitting actions etc. are wrong in traditional moral terms. They might well be - our point was never to deny that. Yet, by proceeding under the assumption that they are not, we hope to have uncovered some features of a distinctive form of ethical aggravation, of some depth, which has so far received little attention in individual climate ethics.

There is a troubled self-regarding dimension to our involvement with CC – this disorienting experience of contributing to the transformation of a planet through mundane, everyday actions etc. that are hitched to infinitely complex, globally interconnected, cross-generational structures and forces that run on incongruous energy sources and seem to dominate our individual lives as much as our economies and politics. If our involvement with CC threatens the meaningfulness of our lives in the ways we have suggested, then this should be reflected in/by concepts, reasons, and practices that relate to concerns about how to find and nurture meaning in life as the climate changes (Jamieson 2014; Di Paola 2017).

Meaningfulness considerations may not be action-guiding in the way moral principles are often thought to be. What meaningfulness considerations do, however, is indicate and encourage focus on a horizon of concerns (agential, narrative, generative) that are important in our lives and are not to be disregarded as we practically negotiate such lives on a planet that we all contribute to warm. Meaningfulness considerations provide a perspective from which to approach our acting, a stock of distinctive reasons and motivations to resort to when acting, and for acting in certain ways and not others. In the climate case, these reasons and motivations will refer to an aspiration to agency retrieval; to finding routes to personal narratives characterized by more lucid as well as creatively experimental attempts at easing the weight of systemically necessitated circumstances; to contributing to something bigger than ourselves that is valuable rather than disvaluable; and to ensuring that the positive meaningfulness in our life is not drained away by the anti-meaningfulness of our involvement in changing the planet and helping the human trajectory take a turn for the worse.

<sup>&</sup>lt;sup>19</sup> Scripter (2023) argues that the phenomenology of remorse, particularly its haunting persistence, shows that anti-meaningfulness can taint, or blight, a life in irredeemable ways, such that no amount of meaningfulness can compensate for it. This, he further argues, shows that accounting models of meaningfulness assessment cannot be correct. Scripter's view is nuanced and deserves a far more articulated analysis than we can provide here. Yet one could also think of irredeemable anti-meaningfulness, as signalled by persistent remorse, as something like a standing order on one's meaningfulness account sheet, or as a toll to be regularly paid (perhaps in one's haunted dreams, perhaps every night) - and thus as entirely capturable by an accounting model. The toll would consistently subtract meaningfulness from one's actions etc. (and in extreme cases – possibly even more extreme than those that Scripter discusses - may be so dear as to never let the final overall meaningfulness figure escape the negative side of the scale).



It may be objected that if our GHG-emitting actions etc. are anti-meaningful in the inescapable ways and for the structural reasons we suggested, then nothing we can possibly do against CC as individuals can ever possibly matter. But that is tantamount to saying that anything we may do to remedy anti-meaningfulness would be meaningless. And that, by our lights, is to say that anything we could do would necessarily scores a zero on the meaningfulness scale. Yet the reason for that cannot be that our overall score on such a scale is negative, nor that we act from within the negative portion of the scale. Anything that remedies anti-meaningfulness, even just partially, in and of itself has a positive meaningfulness score, regardless of whether it brings the overall score above zero. Living less anti-meaningfully is meaningful, not meaningless. And there is a plethora of things each of us can do to live less anti-meaningful GHG-emitting lives. Each of these things will be, in and of itself, meaningful – to differential degrees.

Some can be hugely meaningful. Take Greta Thunberg's early climate strikes - when she acted alone and unknown to most. Still a minor, with no right to vote or run for office, to protest institutional inaction against CC Thunberg invented a new form of political participation, which was public, performative, imaginative (yet familiarly guised), radical (incorporating a harmless yet symbolic sabotage of one central node of society, namely the educational system, denounced as inhospitable to the development of a climatically critical conscience), accessible (open to all and not prohibitive in terms of the time, efforts, and resources it demanded), and scalable (because easily communicable and globally replicable).

Thunberg's strikes were extremely meaningful anti-CC individual actions: a creatively self-starting, inspiring, generative practice of agency retrieval, invented by an individual otherwise disempowered within the status quo. Without breaking or obeying any basic moral principle, Thunberg found one way of making her episodic actions anti-systemic – with a 'fine disregard' for the configuration of the status quo. <sup>20</sup> To the best of our knowledge, Thunberg's strikes have hitherto saved no lives or avoided any climate-induced damages. But even if they never do so, already from our present vantage point her actions etc. can be seen as hugely meaningful, at least from the perspective of common folks – in terms of what non-specially placed individuals can do when it comes to planetary problems like CC.

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Conflict of Interest None.

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<sup>&</sup>lt;sup>20</sup> A "fine disregard" can be described as a deliberate re-formulation or re-interpretation of the rules of a game or practice that eventually leads to the articulation of a new game or practice, which comes to be acknowledged and legitimized by others as such. The term comes from an inscription at the Rugby public school in England: 'This stone commemorates the exploits of William Webb Ellis who, with a fine disregard for the rules of football as played at his time, first took the ball in his arms and ran with it, thus originating the distinctive feature of the Rugby game.'



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#### References

Aaltola E (2021) Defensive over Climate Change? Climate shame as a method of Moral Cultivation. J Agric Environ Ethics 34:1–23

Almassi B (2012) Climate Change and the Ethics of Individual Emissions: a response to Sinnott-Armstrong. Perspectives: Int Postgrad J Philos 4(1):4–21

Attfield R (2009) Mediated responsibilities, global warming and the scope of Ethics. J Soc Philos 40(2):225-236

Aufrecht M (2011) Climate Change and Structural Emissions: Moral Obligations at the individual level. Int J Appl Philos 25(2):201–213

Ayer A (1990) The meaning of life. Charles Scribner's Sons, New York

Baatz C (2014) Climate Change and Individual Duties to reduce GHG emissions. Ethics Policy and Environment 17(1):1–19

Banks M (2013) Individual responsibility for Climate Change. South J Philos 51(1):42–66

Bramble B (2015) Consequentialism about meaning in life. Utilitas 27(4):445–459

Broome J (2012) Climate matters: Ethics in a warming world. Norton, New York

Calhoun C (2018) Doing Valuable Time: the Present, the Future, and meaningful living. Oxford University Press, New York

Campbell S, Nyholm S (2015) Anti-Meaning in Life and why it matters. J Am Philosophical Association 1(4):694–711

Craps S (2020) Climate Trauma. In: Davis C, Meretoja A (eds) The Routledge Companion to Literature and Trauma. Routledge, Abingdon, pp 275–284

Cripps E (2013) Climate Change and the Moral Agent. Individual duties in an interconnected world. Oxford University Press, Oxford

Di Paola M (2015) Virtues for the Anthropocene. Environ Values 24(2):183–207

Di Paola M (2017) Ethics and Politics of the built environment. Gardens of the Anthropocene. Springer International, London & New York

Edwards P (2000) The meaning and value of life. In: Klemke E (ed) The meaning of life, 2nd edn. Oxford University Press, New York, pp 133–152

Farsan A et al (2018) Value Change in the Value Chain. Science Based Targets

Fragnière A (2016) Climate Change and Individual Duty. WIREs Clim Change 7:798–814

Frankfurt H (1982) The importance of what we care about. In: Frankfurt H (ed) The importance of what we care about. Cambridge University Press, New York, pp 80–94

Gardiner S (2011) A perfect moral storm. The ethical tragedy of global climate change. Oxford University Press, New York

Hedberg T (2018) Climate Change, Moral Integrity, and obligations to reduce individual Greenhouse Gas Emissions. Ethics Policy and Environment 21(1):64–80

Hickman C et al (2021) Climate anxiety in children and Young People and their beliefs about government responses to Climate Change: a global survey. Lancet Planet Health 5:e863–e873

Hiller A (2011) Climate change and individual responsibility. The Monist 94(3):349–368

Hourdequin M (2010) Climate change, collective action and individual ethical obligations. Environ Values 19(4):443-464

Jamieson D (2007) When Utilitarians should be Virtue theorists. Utilitas 19(2):160–183

Jamieson D (2014) Reason in a Dark Time. Oxford University Press, Oxford

Jamieson D, Di Paola M (2016) Political theory for the Anthropocene. In: Held D, Maffettone P (eds) Global political theory. Polity Press, Cambridge, pp 254–280

Jamieson D, Di Paola M (2021) Climate Change, Liberalism, and the Public/Private distinction. In: McPherson T, Bodulfson M, Plunkett D (eds) Philosophy and Climate Change. Oxford University Press, New York, pp 370–395

Johnson B (2003) Ethical obligations in a tragedy of the Commons. Environ Values 12(3):271–287

Kass L (2017) Leading a Worthy Life: finding meaning in Modern Times. Encounter Books, New York

Kauppinen A (2015) The Narrative Calculus. Oxf Stud Normative Ethics 5:196-220

Kekes J (2000) "The Meaning of Life", Midwest Studies in Philosophy vol. 24: Life and Death: 17-34



Kipke R, Ruther M (2019) Meaning and morality. Soc Theory Pract 45(2):225-247

Kutz C (2000) Complicity: Ethics and Law for a collective age. Cambridge University Press, Cambridge

Landau I (2011) Immorality and the meaning of life. J Value Inq 45:309–317

Landau I (2017) Finding meaning in an Imperfect World. Oxford University Press, New York

Luper S (2014) Life's meaning. In: Luper S (ed) Cambridge Companion to Life and Death. Cambridge University Press, Cambridge UK, pp 198–214

MacIntyre A (1981) After Virtue. Notre Dame University Press, South Bend

May L (1992) Sharing responsibility. University of Chicago Press, Chicago

May T (2015) A significant life. Human meaning in a Silent Universe. University of Chicago Press, Chicago Metz T (2013) Meaning in life. Oxford University Press, Oxford

Nolt J (2011) How harmful are the average American's greenhouse gas emissions? Ethics Policy Environ 14(1):3-10

Nussbaum M (2004) Mill between Aristotle and Bentham. Daedalus 133(2):60-68

Nussbaum M (2017) Living the Past Forward: the Present and Future Value of Backward-Looking emotions.
In: Nussbaum M, Levmore S (eds) Aging thoughtfully: conversations about Retirement, Romance, Wrinkles and Regret. Oxford University Press, New York, pp 131–149

Nyholm S, Campbell S (2022) Meaning and anti-meaning in life. In: Landau I (ed) Handbook of meaning in life. Oxford University Press, Oxford, pp 277–291

Orange D (2017) Climate Change, Psychoanalysis, and Radical Ethics. Routledge., New York

Plunkett D, Cappelen H (2020) A guided Tour of conceptual Engineering and conceptual Ethics. In: Cappelen H, Plunkett D, Burgess A (eds) Conceptual Engineering and conceptual Ethics. Oxford University Press, Oxford, pp 1–26

Rorty A (1980) Agent Regret. In: Rorty A (ed) Explaining emotions. University of California Press, Berkeley and Los Angeles, pp 489–506

Sartre J (1946) Existentialism is a humanism. In: Kaufmann W (ed) Existentialism from Dostoevskij to Sartre. The World Publishing Company, New York, pp.483–511

Scheffler S (2018) Why worry about future generations? Oxford University Press, Oxford

Scripter L (2023) Remorse and the Ledger theory of meaning. Philosophy 98(1):81-102

Seligman M (2010) "Flourish: Positive Psychology and Positive Interventions", *The Tanner Lectures on Human Values*: https://tannerlectures.utah.edu/ documents/a-to-z/s/Seligman 10.pdf

Singer I (1996) The creation of Value. MIT Press, Cambridge MA

Sinnott-Armstrong W (2005) It's not my Fault: global warming and individual Moral Obligations. In: Sinnott-Armstrong W, Howarth R (eds) Perspectives on Climate Change. Elsevier, Amsterdam, pp 221–253

Smuts A (2013) The good cause account of the meaning of life. South J Philos 51:536-562

Stevenson C (2022) "Anything Can Be Meaningful', Philosophical Papers (online): https://doi.org/10.1080/05568641.2022.2079552

Taylor R (1970) Good and evil. Macmillan, New York

Thompson A (2012) The Virtue of responsibility for the global climate. In: Thompson A, Bendik-Keymer J (eds) Ethical adaptation to Climate Change: human virtues of the future. MIT Press, Cambridge MA, pp 1–24

Vance C (2016) Climate Change, Individual Emissions, and foreseeing harm. J Moral Philos 14(5):562–584 Vanderheiden S (2011) Climate change and collective responsibility. In: Vincent N, van de Poel I, van den Hoven J (eds) Moral responsibility. Springer, Dordrecht, pp 201–218

Verlie B (2019) Bearing Worlds: learning to live with Climate Change. Environ Educ Res 25:751–766

Wallace R (2013) The View from Here: on affirmation, attachment, and the limits of regret. Oxford University Press, New York

Williston B (2015) The Anthropocene Project: Virtue in the age of Climate Change. Oxford University Press, New York

Wolf S (2010) Meaning in Life and why it matters. Princeton University Press, Princeton NJ

Woodbury Z (2019) Climate Trauma: toward a New Taxonomy of Trauma. Ecopsychology 11:1-8

World Economic Forum (2021) Net Zero Challenge. The Supply Chain Opportunity. World Economic Forum Wright L, Kemp S, Williams I (2011) 'Carbon Footprinting': towards a universally accepted definition. Carbon Manag 2(1):61–72

Zimmermann L (2020) Trauma and the discourse of Climate Change. Routledge, London

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