

CLIMATE CHANGE

BRIDGING THE THEORY-ACTION GAP

LISA KRETZ

In Plato's *Protagoras* Socrates presents the problem of *Akrasia* (ἀκρασία), wherein one knows the right thing to do but fails to act accordingly. I am interested in identifying how to bridge this gap between theoretical commitments and behaviour. I discuss the problem in the context of the climate change crisis. Action lags, despite highly persuasive arguments that continuing the current trajectory of greenhouse gas (GHG) emissions is irrational and immoral. Given this failing I recommend that practitioners of moral philosophy prioritize working on a swift resolution to the theory-action gap; namely the gap between espoused moral values and the actions that reflect such values. I contend that ethicists require a more robust account of *how* to facilitate morally justified behaviour and political action. One move in this direction pertains to motivation. An action-inspiring environmental philosophy makes necessary a grounding in knowledge of what morally motivates people to action. Thus, I argue that theory, practice and pedagogy must be empirically rooted in moral psychology regarding motivation and behaviour change.

CONTEXT AND MOTIVES

I focus on North America, a locale with nations financially well-situated to avoid the worst of climate change harms for the longest duration through financial buttressing (at least for a subset of the population). Environmental action is often taken when one is affected negatively in direct and concrete ways. It is therefore unfortunate that populations with the most fiscal and political power have the greatest ability to avoid the sorts

of environmental harm that pragmatically necessitate an immediate and comprehensive response. Within North America I focus my analysis on the population whose job it is to advance moral theory, namely practicing ethicists. I also focus on their students—those intellectually advantaged individuals able to access sufficient wealth for a university education. The question prompting my research is why immoral, depoliticized, hyper-consumptive behaviors continue despite the clear need for significant alterations to these practices. I want to learn how to proactively translate ethical knowledge into real-world change.

CLIMATE CHANGE CRISIS: IRRATIONAL AND IMMORAL INACTION

This is an age of ecological crisis marked by global warming, an exploding human population, depletion of land and water supplies at an ever-expanding rate, massive species and habitat destruction, alarming decreases in biodiversity, and pollution and toxic waste accumulating at such a pace that safe disposal is impossible (Fiala 2010, 51). There is widespread scientific agreement that humans are responsible for dangerous levels of global climate change, as seen in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC 2007). There has, however, failed to be an adequate response to the global climate change crisis. Ecological harms of unprecedented proportions continue. Over the course of a *single lifetime* humans have burned ninety-seven percent of all the oil that has ever been burned (Thompson 2010). 2010 saw the largest accidental oil spill in history, with British Petroleum Oil pouring five million barrels of oil into the Gulf of Mexico (Kramer 2010). Global greenhouse gas GHG emissions due to human activities have increased seventy percent between 1970–2004 (IPCC 2007). Global levels of carbon dioxide (CO₂) emissions are already above 350 ppm level. If we wish to preserve the planet so that it remains similar to the one that life on Earth is adapted to “paleoclimate evidence and ongoing climate change suggest that CO₂ will need to be reduced from its current 350 ppm” (Hansen et al. 2008, 217). Moreover, if the present overshoot of this target fails to be brief “there is a possibility of seeding irreversible catastrophic effects” (Hansen et al. 2008, 217). In 2010 CO₂ levels ranged from 387–393 ppm (Cuomo 2011). Eleven of the twelve years between 1995–2006 ranked among the hottest in the history of instrumentally recorded global surface temperature (since 1850) (IPCC 2007). In spite of this, the Kyoto Protocol

has failed to be ratified. National leadership in the form of commitments to GHG emission reductions is lagging. There is high agreement and much evidence that global GHG emissions will continue to grow over the next few decades with a projected increase of twenty-five to ninety percent between the years of 2000-2030 (IPCC 2007, 7). Already an estimated twenty-five million environmental refugees have been displaced due to anthropogenic global warming, and the number is predicted to grow exponentially (Attfield 2009). As such, I do not take as contentious the claim that humans have failed to adequately decrease GHG emissions to a level necessary for avoiding ecological catastrophe.

Despite ample evidence that negative human impacts are destroying the ecological systems that underwrite the possibility for life as we recognize and value it, little progress has been made toward sustainable solutions (Fiala 2010). The social change necessary for reducing harmful human impacts, at minimum to a level that facilitates the future survival of human society, has not occurred (Plumwood 2006). Val Plumwood notes that despite the devastating results of climate change, a low priority is afforded to dealing with it, and that—quite simply—is an irrational course of action (Plumwood 2006). Such behavior is blatantly irrational to the extent that we wish for the human species to continue existing in the future.¹ Moreover, it is blatantly immoral. Plumwood contends “our failure to situate dominant forms of human society ecologically is matched by our failure to situate non-humans ethically” (2006, 2). Examining the radically inequitable distribution of escalating climate change harms helps illustrate various ethical dimensions of the climate change crisis.

GHG emissions and exposure to the concomitant negative effects vary among populations. Due to existing inequities and systematic oppression, women, people of color, and the poor are more susceptible to climate change harms (Alber 2011, Cuomo 2011). In the Global South the difficulties faced by women due to the climate change crisis are intensified (Alber 2011, Glazebrook 2010, Glazebrook 2011, Shiva 2005). If one generalizes at the national level, the countries that have already benefited fiscally from industrialization a) have been the major contributors to climate change and b) are the ones best able to cope, in the short term, with the negative ramifications of their pollution. The distribution of energy use among nations is radically imbalanced. The majority of carbon emissions come from fiscally rich nations. The world’s richest consume twenty-five times more energy than the poorest (Gaudiano 2010). The

United States houses 4.5% of the world's population but "accounts for twenty-five percent of all carbon dioxide emissions and still refuses to sign the Kyoto Protocol, despite its limited scope" (Gaudio 2010, 135). Developed nations have used far more than their "fair share" of the atmospheric commons (O'Hara and Abelsohn 2011, 29). It is often those who are least responsible for climate change that are the most exposed to its impacts (Abelsohn and O'Hara 2011). The multiply oppressed suffer first and worst, with disproportionate harms being faced by vulnerable populations whose subsistence existence is threatened (Gaudio 2010, Singer 2010).

Within fiscally rich nations, inequalities exacerbate climate change harms, as can be seen through environmental racism and classism. For example, pollution and poverty go hand in hand in that there are correlations between those who are most impoverished and those forced to live in the most polluted locales. Val Plumwood notes that "A smog map of Sydney, Australia...correlates the heaviest air pollution areas very closely with low socioeconomic status" (Plumwood 2011). Environmental racism is indicated, in part, by the tendency "to site toxic facilities in the living areas of the least powerful groups, especially on the basis of race" (Plumwood 2011). James Sterba discusses how rich countries force poor countries with little bargaining power to accept polluting waste such as dioxin-laden ash, a practice identified by Carl Talbot as "toxic imperialism" (Attfield 2009, 231). Those with substantial financial wealth will be able to weather, for a time, the losses to land and property as climate change impacts increase. I say "for a time" to highlight that global destruction will catch up with everyone eventually.

Ethical arguments as to why the current human contribution to harmful climate change is morally wrong are not lacking. Even from a solely anthropocentric perspective, we are destroying the possibility for future human life. Advocates of Kantian deontology recognize the failure to pass the categorical imperative of any maxim that includes continued energy use at the current rates. The formulation of universalization and humanity also call attention to the disproportionate harms suffered by those who are already multiply oppressed (Kant 1993, 421-34). On a utilitarian paradigm, where the suffering of non-human animals can be brought into consideration, it is a clear case where the pains/harms/general badness associated with harms that climate change generates outweigh the

(necessarily temporary) pleasures/benefits/general goodness for the disproportionate few. Virtue theorists recognize as vices the selfish and destructive character traits associated with hyper-consumer culture and the callously imbalanced use of resources.² Ecofeminists identify conceptual and empirical overlaps between the oppression of women, nature, and other-others (i.e. due to race, class, geographical location etc.) (Warren, 2005). Insofar as one is morally motivated to end the oppression of nature and the oppression of populations vulnerable to climate change, then the social structures, assumptions, and behaviors that hold in place or seek to legitimize human destruction of the planet through climate change are recognized as being morally wrong. Even the most basic and ubiquitous moral norm, namely the golden rule—treat others as you would like to be treated—manifests the inherent immorality of human behavior that is bringing about climate change. Thus, it is not a shortage of rational argument derived from the annals of philosophical ethics that is the root of insufficient action regarding the need to immediately begin the process of minimizing anthropogenically caused climate change. The sources of inadequate action must be sought elsewhere.

THE THEORY-ACTION GAP

Given a clear acknowledgement that basic tenets of morality require a substantive behavioral change—and in terms of less altruistic motivations, the basic tenets of self-interested rationality—the shocking lack of adequate change prompts cause for reflection. My concern is that if moral theorists are failing to bring to realization the most basic moral values, failing to motivate the simple requirements for continuation of life, then the current approach needs to be reevaluated. In light of this failing I recommend that practitioners of moral philosophy prioritize a swift resolution to the theory-action gap; namely the gap between espoused moral values and the actions that would reflect such values.

The theory-action gap is not a problem unique to environmental ethics. Socrates introduces the problem of *Akrasia* (ἀκρασία) in Plato's *Protagoras*. *Akrasia* refers to weakness of the will or failing to do what one believes to be right. Socrates attempts to deal with the troubling claim that “most people are unwilling to do what is best, even though they know what it is and are able to do it” (Plato 352 e; Cohen et al. 2005, 171). He contends that people who are overcome by a desire for immediate pleas-

ure have proximal benefits in sight and remain ignorant of the greater balance of pleasure/good to be achieved by the overarching, long-term benefits of right action; therefore it is ignorance that leads to wrong action (Plato 352 e-358d; Cohen et. al. 2005, 171–76). On Socrates' account, no one willingly goes toward what is believed to be bad; all actions lead toward what is believed to be the good—if there is something else better and possible, then one goes toward that (Plato 358a-d; Cohen et. al 2005, 176). Acting against what one knows or believes to be best (weakness of the will) is taken to be impossible, given that nobody ever does what is known or believed to be less than the best (Cohen et. al 2005, 91). As will be made clear shortly, however, remedying ignorance is not sufficient for motivating moral behaviors that reflect espoused values in the context of the climate change crisis. More than just education is required if action is desired.

MOTIVATION AND ACTION

One move in the direction of bridging the theory-action gap pertains to motivation. A philosophy of environmental action will include an account of what psychologically motivates people to act (Goralnik and Nelson 2011). Carol Booth highlights that Elizabeth Anscombe's contention that moral philosophy requires an adequate philosophy of psychology still holds for ethics generally, and for environmental ethics in particular (2009). Booth acknowledges that conservation is plagued by a rhetoric-behavior gap, and recommends a research turn toward the best current science around motivation (2009). She gives a sketch of what a turn to motivation in environmental ethics would look like, which includes a focus on the topic of motivation, analysis of empirical accounts of motivation for conservation, normative questions about motivation, and concrete strategies for motivation (Booth 2009). The motivational tasks of conservation include reforming social, conceptual, and institutional conditions to foster motivation (Booth 2009). Booth highlights that fostering motivation involves both countering motivational vulnerabilities and supporting motivational capabilities (2009).

A theory of environmental action can address why and how environmental action occurs. Lissy Goralnik and Michael Nelson argue that a theory of environmental action will explain why, for example “we care about the preservation of wilderness, old-growth forests, and biodiversity”

(Goralnik and Nelson 2011, 183). It will explain why and how people are motivated to act on behalf of the nonhuman world while ethically justifying and necessitating those actions and it will enable arguments to be more consistent and effective (Goralnik and Nelson 2011). Here we can take Immanuel Kant's insight that "ought implies can" one step further through recognizing "can implies know-how" (Kant 1998, A548/B576). For an action to be non-contingently possible, one must possess knowledge of how to bring about said action. That an action can theoretically be performed is useful information to the extent that one knows how to successfully motivate that action.

MORAL EDUCATION AND THE NEED FOR EMOTIONAL ENGAGEMENT

Now to address how philosophical ethical education occurs in most North American university settings. There is a view implicit in the way much moral education within university philosophy departments takes place. It involves the belief that sharing knowledge inevitably leads to behavior that reflects the responsibilities attached to the vantage point of this new knowledge. With regard to environmental education, empirical data repeatedly demonstrates that the assumption is false. There is widespread critique of the "knowledge-attitude-behavior" method (Goralnik and Nelson 2011, 183).³ Simply put, one cannot assume that increased knowledge about nature leads to a favorable attitude toward nature which in turn motivates action on behalf of nature (Goralnik and Nelson 2011). Research shows that what *does* tend to motivate behavioral change involves emotion.

Goralnik and Nelson recommend a vital role for care and a sense of community in environmental moral theories meant to instigate action. Their account adopts the approach of Aldo Leopold, who is taken to have borrowed a page from Charles Darwin (and therefore David Hume and Adam Smith) in writing his *Land Ethic* (2011).⁴ Goralnik and Nelson implement Aldo Leopold's recommendation to focus on relationships that inspire care and empathy (2011). Empirical evidence supports the claim that a viable account of emotion is essential for a viable ethical theory. Contemporary brain research on the nested cognitive and affective responses to ethical dilemmas reflects an approach to morality wherein both reason and emotion play a necessary role (Goralnik and Nelson 2011). Chrisoula

Andreou highlights that the “prevailing view among empirically oriented moral philosophers is that morality is grounded in sentiment...at least for human beings, the capacity to make genuine moral judgments depends on related emotional capacities” (Andreou 2007, 47). Goralnik and Nelson contend that since rationality and emotion cannot be disentangled we should “address them as a single entity in education and ethical decision making” (Goralnik and Nelson 2011, 187–88).⁵ As such, they employ an ethical framework that assumes “students will neither care about nor retain the knowledge they gain unless they are first emotionally and ethically engaged by place, community, and content” (Goralnik and Nelson 2011, 183). Insofar as ethicists are interested in facilitating moral action to aid in the goal of making our world one that reflects basic moral values, it is essential to have theories and practices that reflect how emotion functions in tandem with critical thinking.

ETHICISTS AND ACTIVIST PEDAGOGY; COUNTERING CAPITALIST SCRIPTS

Academic ethicists are uniquely situated to help inspire and support well-grounded behavioral shifts through highlighting current morally pressing issues, providing strategies for critical thinking, attending to emotionally appropriate responses, and facilitating methods for moral action. Environmental ethicists are especially well placed to deal with environmental issues, but given the urgency with which climate change must be addressed, environmental issues merit the attention of all ethicists. Academics are in positions of significant political and social power relative to the vast majority of people. For example, to a large extent professors get to specify themes of class material, the nature of assignments, the focus of their publications, the nature and extent of their public outreach (government, public service), and they are taken seriously in terms of their contributions given the extensiveness of their education about their area of specialization. This position of epistemic power can be used to share information through books for popular audiences, being interviewed by reputable news sources, and giving presentations to audiences not composed solely or primarily of academics. Such a vantage point enables one to encourage and support morally defensible activism. I am suggesting ethicists have a moral obligation to facilitate and participate in environmental action both in and out of the classroom. Responsibility as I intend it here is not about identifying who to blame and therefore hold account-

able, an approach which enables one to ostensibly absolve oneself of responsibility. Responsibility is to be conceptualized in a forward looking, positive way—it is about taking responsibility through identifying how to help and acting accordingly. Academic ethicists have an important contribution to make. Solutions, in contrast, involve the synthesis of multiple actions at varying levels of organization in diverse geographical, cultural, economic, social, and political settings. Therefore, I highlight opportunities for responsible behavior from specified political, economic, and social locations.

Helping to instigate activism is a dimension of motivation discussed by Booth. Booth contends that individual voluntary action is not enough for fundamental change as previous large-scale reforms such as the abolition of slavery and improved sexual equality have shown (Booth 2009). Collective activism is needed to achieve political reform which can encourage or require responsible lifestyles. Limiting collective harm to nature typically requires activism to alter rules and norms (Booth 2009); thus activism is recommended as a moral duty, for both normative and motivational reasons (Booth 2009). Activism is motivationally advantageous, offering meaningful engagement with society at-large as well as relationships and identities that can serve to enhance well-being (Booth 2009).

As a case in point, a strong activist response is needed in North America to counteract forceful messaging from various sources to hyper-consume with abandon and absolve oneself from responsibility.⁶ Dale Jamieson notes that, “As philosophers and clergymen have become increasingly modest and reluctant to tell people what to do, economists have become bolder” (Jamieson 1992, 143). The shaping of consumer behaviors, as opposed to ethical behaviors, has been overt. To ensure a productive economy following World War II retailing analyst Victor Lebow recommended: “Our enormously productive economy...demands that we make consumption our way of life, that we convert the buying and use of goods into rituals, that we seek our spiritual satisfaction, our ego satisfaction, in consumption...we need things to be burned up, replaced and discarded at an ever-accelerating rate” (Leonard 2012, 10). This objective has been brought to fruition with alarming success. The design of products for planned and perceived obsolescence further speaks to the mandate of hyper-consumption and hyper-destruction; six months after the sale of materials in North America a total of one percent is still in products that are in use (Hawken 1999; Leonard 2012). Sustained at-

tention is needed concerning how psychology informs behavior and how current un-sustainable behaviors are shaped. I think it useful for ethicists to develop a keen awareness of the psychological assumptions and associated applications that underwrite successful mass-media marketing and advertising. It is time for ethicists to be bold.

The immoral prioritization of spending strikes me not only as incredibly worrisome but highly suspect. In 2002 the world expenditure on advertising was 446,000 million dollars, while an annual investment of 19,000 million could have eliminated hunger and malnutrition (Gaudiano 2010, 135–36). Vaccinating all the children in the world costs almost ten times less than what Europeans spend annually on ice cream (Gaudiano 2010, 135–36). I do not believe that most people are malicious, uncaring, insensitive and selfish if given the opportunity not to be. For psychological evidence to this effect see Yochai Benker (2003). I think if folks were given a clear case where they had to choose between ten percent more ice-cream annually or the vaccination of innocent children, most would not choose the extra ice-cream. Social shaping of decisions coupled with structural problems (including efforts to ensure consumers are ignorant of the long-term social and environmental impacts of their spending patterns) support immoral actions, actions that are often bought with heavy psychological conditioning. Hyper-consumerist identities are meant to ensure insatiable desires for the accumulation of ever-changing commodities and services. Knowledge of how hyper-consumerist identities are generated, maintained, and then marketed to can enable well-informed approaches to counter such identity construction and behavior in favor of morally grounded identities and behaviors. For example, situational factors which can undermine morality can be resisted through strengthening one's conservation identity (Booth 2009, 69). If we take moral agents to be characterized through their relational identities both as individuals and members of various groups, there can be moral duties through individual action (i.e. to limit one's own harm to nature) and through membership in larger communities (working toward limiting collective harms to nature) (Booth 2009). Capitalistic narratives dominate the North American imaginary. Their success is premised on socially shaping desires through applying a thorough knowledge of behavioral psychology and marketing strategies. To counteract thoroughly ingrained economic identity construction via capitalistic scripts, ethicists must likewise attend to what behavioral psy-

chology and marketing strategies reveal about the intentional shaping of specific behaviors.

To work against capitalistic narratives, strategies for motivating moral actions that reflect considered ethical commitments require closer interdisciplinary ties between philosophy and psychology specifically, and marketing, advertising, and the social and behavioral sciences generally. The intended scope and extent of desired behavioral changes must be clearly articulated. With regard to advertising, Costanzo et al. note, for example, that advertising intended for altering consumer preferences involves small changes in preferences requiring minimal effort and expense, as opposed to dramatic changes in lifestyle (1986). The impact of being inundated with multiple, complementary, advertisements in favor of hyper-consumption may help explain circumstances wherein dramatic changes in lifestyle are achieved. Stuart Oskamp recommends applying social psychology to avoid ecological disaster through an orientation to research on behavior that effects environmental quality, and a move toward evaluating environmentally relevant programs after they are implemented to ensure the desired effects are achieved (1995). Doug McKenzie-Mohr is an environmental psychologist interested in teaching environmental organizations how to change public behaviors to better reflect environmental mandates. He advocates an approach to social marketing that uncovers barriers to positive behavioral change so as to enable program designs intended to overcome them (2000). Likewise courses could be designed to remove barriers to positive behavior change and enhance the likelihood of environmentally responsible behavior. If information is communicated via interpersonal contact and effective behavior is modeled (using the social diffusion model) it is more likely to influence behavior than when information is communicated non-personally (Costanzo et al. 1986). Interpersonal media sources do not exert as powerful an influence as information received through interpersonal channels—information transmission through social networks is highly vivid and personal, and friends and acquaintances are taken to be more credible and trustworthy than media sources (Costanzo et al. 1986).

If one is interested in designing courses to overcome the theory-action gap, practical methods for doing so are being explored. In a Taiwanese study by Hsu et al., an environmental education course was developed which focused on issue investigation-evaluation and action training, and

placed an emphasis on fostering empowerment (Hsu 2004). The results indicated that this novel pedagogical approach significantly promoted students' responsible environmental behavior, locus of control, environmental responsibility, intention to act, perceived knowledge of environmental issues, and perceived knowledge of/skills in using environmental action strategies (Hsu 2004). Unfortunately, self-reports about behavior change may not reflect actual behaviors. As such, methods for identifying behavioral changes that involve externally confirmable behaviors would be of use in further studies. Part of the course's success hinged on students identifying an ecological issue and developing a plan of action to remedy it. Here the jump to political engagement is key.

Given that individual environmentally responsible actions undertaken in isolation will not reduce anthropogenic climate change to a sustainable level, political engagement is a necessary element of ethical environmental behavior (Cuomo 2011). Paulo Freire identified educational methods for empowering and ethical political engagement in the context of oppression in *Pedagogy of the Oppressed* (2010). Methods for empowering and ethical political engagement in a context of relative privilege, as found in academic settings, is also needed—a *Pedagogy of the Privileged Against Oppression*, if you will. Multiple methods can be used to reveal when, how, and why considered moral judgments contribute meaningfully to a) attitudinal change, b) shifts in identity, and c) behavior change reflecting espoused values at the individual level and at the level of social and political engagement. Discovering when, how, and why attitudes and behavior do not change is also useful. Professional ethicists could learn from, and contribute to, the growing body of research investigating why increasing awareness of climate change is not leading to altered behaviors (Comeau 2008).

Louise Comeau and Robert Gifford explore the intersection of messaging/framing and action. They analyzed the assumption that using motivational-oriented discourse, involving solutions, values, and visions, instead of sacrifice-oriented discourse is a more effective strategy for encouraging behaviors that minimize GHG emissions (2011). In their study, exposure to motivational framing was associated with greater perceived competence to deal with climate change and greater climate change engagement (2011). Agentic language also had a significant impact. Causative verbs, which closely link cause and effect cognitively and imply free will, increase perceived competence to deal with climate change when

tested against the use of more-passive verbs (2011, 1303–04). Put simply, the ways in which ideas are framed impact their ability to motivate.

If the ways in which moral theories are framed impact their ability to motivate, then writing by ethicists can benefit from motivational framing. Knowledge of how to write in ways that emotionally, ethically, and rationally engage audiences using diverse media such as news articles, scholarly papers, and popular philosophy books is needed. The impact of additional media sources such as interviews, documentaries, and films can also potentially be used for successful ethical education for ethical behavior. Efforts to motivate moral environmental and political engagement—so as to facilitate a shift from immoral social, economic, and political structures toward ecologically sustainable ones—will benefit greatly from an understanding of what results in behavioral change and what fails to. An awareness of the ways in which idea presentation impacts idea uptake can inform ideal methods for sharing moral insights. More specifically, effective presentation can better facilitate behavioral change. In addition, an understanding of relevant motivational variation among social groups will enable more successful engagement of differently-situated persons.

COUNTER ARGUMENTS

A legitimate worry about the developments advocated above is that ethicists are being asked to utilize tools that are currently applied immorally. Let me stress that the ethical grounding of all I recommend above is tied necessarily to complete transparency regarding intent between teachers and students. For example, an instructor might announce to their students at the beginning of the term that they are interested in exploring a) how to arrive at open-minded/hearted, well thought/felt, critically considered, moral positions and b) how to ensure that those who arrive at these moral positions can successfully manifest behaviors that echo these ethical commitments. Transparency marks the difference between motivation and manipulation. Transparency enables individuals to proactively shape their identities and behaviors. If particular advertising tactics generate a high likelihood that individuals will define their worth primarily in terms of actively exercising their purchasing power, and the viewers of the advertisements are not informed of this intent, then this practice is morally suspect. Similarly, if a moral theorist uses framing meant to instigate environmentally sustainable moral action, and fails to make this intent transparent to their audience, this practice is likewise morally suspect.

Transparency involves explicit awareness of how various ideas, theories and their vehicles of dissemination impact desires, beliefs, values, identities, and actions. Intended impacts of messaging on identity formation and action are not currently tabled by advertisers, corporations, or social and political strategists. Autonomy and morality require that these underlying motivations are made transparent.

A more difficult problem pertains to the specific nature of the attitude sought. A simplified version of this counter argument runs as follows: If a university faculty member tries to instigate specific attitudinal and behavioral changes in their students, they are indoctrinating rather than educating—as students are not able to think for themselves (Anderson et al. 2011). This argument presents a false dichotomy wherein student free-thought and balanced education are taken to necessitate presenting a view and its counter as equally merited. For example, for the sake of “balance,” a professor might be asked to present as equally viable the view that humans are responsible for harmful climate change and the view that humans are not responsible for harmful climate change. Contrary to this approach there are ways to encourage independent thought while still presenting the best available evidence and/or the most justified view. Enabling independent thought need not involve giving *equal* airtime to contrary views for the sake of offering “both sides” of the debate. In the case of climate change a view accepted by the vast majority of the best scientists based on the best evidence available and a view accepted by a limited number of scientists based on questionable evidence do not merit the same sustained attention. Students are enabled to think for themselves when given critical tools to analyze a thesis, identify the strengths and weaknesses in any argument, and discern and address the strongest counterarguments. Students are empowered when they are encouraged to believe in their current capacity and future ability as critical thinkers and participants in shaping the world. The capacity for independent thought is not enhanced by internalizing the practice of treating the most defensible and justified views as being just as likely as their opposite. Indeed, such an approach hinders epistemic progress.

It is also worth noting that in the case of motivating the moral action necessary for the continuation of life on this planet there is a unique defense for doing so. Namely, such action is pragmatically needed if any further debates are to happen, including whether it is pedagogically permissible to actively motivate sustainable environmental action.

CONCLUSION

The current lack of an adequate response to climate change is fundamentally immoral and irrational. Existing inequalities exacerbate climate change harms, further multiplying oppressions for those who are already treated unjustly. There is clearly a gulf between what morality and rationality require and the actions that reflect such requirements. I situate my discussion in the context of North American universities, which are themselves situated within a broader capitalistic paradigm. I contend that academic ethicists are uniquely placed to attend to remedying the theory-action gap. Part of the solution involves identifying how to motivate behavioral change to reflect espoused beliefs. A theory of environmental action will make explicit the connections between knowledge, belief, and behavior. Environmental ethics will benefit from reflecting the emotional dimensions that play a necessary role in ethical decision-making and are essential for motivating behavior. Insight about how people's behaviors and identities are shaped can be gleaned from psychology, advertising, and marketing research specifically, and the social and behavioral sciences generally. Transparency in application can enable intentional identity shaping and behaviors that succeed in reflecting one's closely held beliefs and values. A shift in theoretical and pedagogical approaches toward ethics that inspire moral action takes ethics beyond the classroom and into the realm of activism. The threat we face is the demise of human life and the destruction of a myriad of innocent organisms. The need for immediate, ethically justified action could not be more pressing.

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NOTES

- 1 Although I firmly believe that non-human entities are deserving of moral consideration I will limit my argument here primarily to one consistent with an anthropocentric position.
- 2 See, for example, Phil Cafaro's discussion of gluttony, arrogance, greed and apathy as environmental vices (2005).
- 3 For evidence of a disjunct between environmental knowledge/attitude and environmental behavior that reflects this knowledge see: Bickman 1972; Costanzo et al. 1986; Finger 1994; Geller 1981; Geller, Erickson and Buttram 1983; Hsu 2004; Hungerford and Volk 1990; Kollmuss and Agyeman 2002; McKenzie-Mohr 2000; and Sia, Hungerford, and Tomera 1985/86.
- 4 This interpretation of the philosophical underpinnings of Leopold's work, where ethics are taken to evolve through extending concern to wider communities, is defended by J. Baird Callicott (2005).
- 5 In support Goralnik and Nelson cite the work of D'Arcangelo (2000), Weiss (2000), Sylwester (1994), and McCuen & Shah (2007) (Goralnik and Nelson 2011, 188).
- 6 This is one of many behaviors needing to be countered—and by no means am I prioritizing it above the behavior shifts needed at various collective levels. Further research pertaining to collective and individual behavior, and their synergistic interaction, is needed.

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