English through Climate Change

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Climate Change: A Challenge for Ethics

Evangelos D. Protopapadakis

Abstract

Climate change – and its most dangerous consequence, the rapid overheating of the planet – is not the offspring of a natural procedure; instead, it is human-induced. It is only the aftermath of a specific pattern of economic development, one that focuses mainly on economic growth rather than on quality of life and sustainability. Since climate change is a major threat not only to millions of humans, but also to numerous non-human species and other forms of life, as well as to the equilibrium and the viability of the very planet, addressing it is of dire importance. In this chapter it will be argued that addressing the threat of climate change is primarily a task and a challenge for ethics, since the stabilization and gradual amelioration of the situation requires abandoning an up to now dominant model of life, longestablished customs and a so far cogent system of moral values. It will be further maintained that this for ethics might – or, even, should – become a new categorical imperative, since preserving the viability of the planet is a fundamental moral duty not only towards the existing members of the moral community, but also towards future generations. The chapter provides a glossary of the most important terms used in the text presented in the first part. It also provides different exercises aiming either to further consolidate student understanding of these terms or / and strengthen student grammatical and syntactical skills.

The Western philosophical tradition is largely – and becomingly – indebted to Socrates, for it was with him that ethics as we today know it was born (Russell, 1967). Socrates' main contribution to ethics could be excellently summarized in a wellknown argument of his, namely that "nobody does wrong willingly" (Plato 1998); by this, he is supposed to be suggesting that anyone who acts unjustly does so because he or she is at the moment

unaware of the very fact that his or her deeds are actually unjust. The upshot is that if one has a good understanding of the moral status of each one of his or her options, one will never voluntarily opt for the morally unjustified one, unless, of course, one is mentally deranged. Socrates' view is really optimistic, but by no means stands for an unshakable truth. As early as Aeschylus' *Prometheus* it has been intensely argued that humans might actually "know what is better and approve of it, but pursue what is worse" (Aeschylus, 1990; Ovid, 1998) all the same. The human condition indeed seems to be pointing to the opposite direction from Socrates' intellectualistic optimism. We should, however, credit Socrates with this: knowing that something is wrong is a necessary condition for a moral agent to abstain from it; or, in other words, if one does not know that something is wrong, one has no good reason to avoid it and pursue something else. This is true concerning many aspects of the behaviour of humans, but never truer than when it comes to the human interaction with the non-human environment.

Is there any moral responsibility?

It was only a few decades ago when the disastrous impact climate change may have on people and the environment finally became fully manifest. Now humans know; the veil of ignorance is levied, so moral responsibility may enter the stage. All the more so, because the question concerning what should be done about climate change is a par excellence moral one, since it needs to address a major conflict in interests (Grubb, 1995). Climate change is mostly due to global warming, which is a consequence of higher than normal concentrations of greenhouse gases in the stratosphere. This creates "a partial blanketing effect" (Houghton, 1997), which causes the temperature at the surface to be higher than would otherwise be the case. Excessive emissions in greenhouse gases is caused by the constantly increasing use of fossil fuels (Gardiner, 2004) by developing countries that in most cases are utterly dependend on such energy sources for their economic growth and overall well-being. This is mostly because fossil fuels still remain much cheaper than any other energy source, much more reliable than sun and wind energy, and a lot safer than nuclear power.

Developing countries seem justified to claim equal opportunities to growth and a fair share to economic flourishing (Gardiner, 2004), by making use of exactly the same means that less than a hundred years ago allowed their developed neighbours to flourish: hydrocarbons (Lomborg, 2001); this model of growth, on the other hand, is obviously a major threat to the natural equilibrium and, hence, no more sustainable: the average temperature of the planet constantly increases, the polar ice melts, the sea level rises putting at

stake the well-being and, eventually, the existence of millions of people, as well as of incalculable species of flora and fauna. And these are only the dangers that scientists are today aware of (Broome, 1992); if the situation does not drastically change soon, all experts in the field of climate change concur that in the near future no species may feel safe. Then, as long as the question concerning climate change requires – and necessitates – the evaluation and compensation of conflicting interests, and since at the same time considerations of fairness, equity, and justice must also inform any successful international agreement, it seems that the issue of climate change entirely falls under the domain of ethics. No less, it seems to outline an ultimate challenge for ethics: not only it is a highly exigent issue, since it demands that moral agents take into consideration their relations to fellow humans on a par with those to non-human species and the non-human world, but it is also logically prior to any other moral issue. In other words, if the problem of climate change is not promptly, fully and properly addressed, it seems almost non-sensical to attempt to come to grips with other ones: no moral issue would survive the – as it now seems – inevitable overwarming of the planet.

Any moral agent might be held responsible for his or her actions provided on the one hand that these actions have consequences for other human beings, and on the other that one is offered alternatives, among which he or she is free to choose. The former might be regarded as the sufficient condition for moral responsibility, while the latter as the *necessary* one. It is obvious now that the way humans have chosen to interact with the environment is the main cause of unforeseen and unwanted climate change that has grave consequences not only to individuals, but also to entire populations. It is also clear that this modus operandi – and its main consequence, climate change – is not unavoidable or imperative; other means of pursuing progress could always be employed, provided that moral agents felt they ought to - or should – do this. This is because each one of the ways that might be employed on purpose of interacting with the non-human world obviously implies certain and distinct consequences and, of course, it is not mandatory for humans to live after only a certain fashion or to abide by a given pattern of progress; it might sound like wishful thinking, but humans can always abandon convenient though hazardous or calamituous lifestyles in favour of more moderate but safer ones. The fact that now the consequences of each of these alternatives can precisely be estimated is the safest of grounds for moral responsibility to sprout.

Today, no institution, no state, no coalition of states, no enterprise or individual can invoke ignorance as an excuse, unless one wants to play blind and deaf at the same time. Today, every strategic decision regarding industrial activity or, in general, the patterns of economic growth, is not merely a

technical statement anymore, but also a genuine moral one, for it stands for a certain way of understanding and evaluating rights, duties towards fellow humans and the environment, responsibilities towards non-human life and landscapes, and priorities concerning what should be pursued in life (Jamieson 2003, p. 290). General economic theories have always been incorporating notions of what should be preferred or avoided; they have always rested upon specific sets of moral values and have always discerned the alleged right from the alleged wrong, justifiable policies from unjustifiable ones, proper goal setting from improper. Nevertheless, nowadays, the stake has grown as high as it can get: the dilemma no more regards the flourishing of the few in expense of the many or vice versa, nor any scientific disagreement concerning the selections of the most appropriate means towards progress and development (Jamieson, 2003). Today the dilemma is about the continuation of life on earth as it now is, and it is a *par excellence* moral one.

To whom are moral agents accountable?

Obviously, moral agents are morally responsible to everybody (and, also, to everything) that is – or might be – affected by climate change. Since the continuing emission of greenhouse gases is a strategic and moral choice aiming to specific gains, the actual or potential losses of all affected parts should also be equally considered. The real question, therefore, should be: Who is – or might in the future be – affected or burdened by climate change?

a. Existing fellow humans

Entire populations currently live in areas just a few meters – and in some cases only centimeters – above the sea level. The rapidly melting polar ices threaten not only the natural equilibrium in these landscapes, but also their actual existence, along with the habitats of millions of people. These people, in the near future, should have to be relocated; their way of life will be dramatically changed; local civilizations will perish; the quality of people's lives will be diminished. In short, vast populations will be forced to abolish fundamental rights that humans so far have been free to enjoy and exercise. In addition, it must be mentioned that those who are about to be mostly affected by climate change are mainly the least well-off, to wit the least facilitated to overcome untoward situations or to adapt to new ones. However, it is a commonplace in ethics that the interests of the weak should be taken much more seriously into consideration than those of the mighty. Climate change threatens directly the rights of entire populations that happen to be devoid of any means to protect theirselves; people in threatened areas most

of the times live below the standard of poverty; they are poorly – if at all – politically represented; in a word, they are just "voiceless" people, who are unable of making their stand. An ethic that would fall short of guaranteeing, not just the rights and well-being, but also the very survival of those in need, would be self-defeating.

If today those who inhabit areas that are mostly threatened by climate change face the danger of being deprived of their fundamental moral rights, tomorrow they will not be the only ones to suffer such a loss: as a matter of fact, all the dwellers of this "global village" (McLuhan, 1964) will see some of their basic rights being suspended, and their well-being accordingly diminished. For one, when the ongoing immigration due to the sea level rise has reached its peak, all nations – in varied degrees, of course – will suffer the consequences; most people's right to a standard of living that would be adequate for basic needs and access to services will be drastically limited, along with their opportunity to enjoy "a social and international order in which the rights and freedoms set forth in the Universal Declaration of Human Rights can be fully realized" (COMEST, 2010).

b. Future generations

Future generations can not be considered as right-bearers, simply because they do not still actually exist; they cannot partake in the covenant of ethics as claimants of rights, exactly as they could not be bound with any kind of duties to anybody. This, however, does not mean that they should be excluded from moral consideration. On the contrary, there are good reasons why moral agents ought to make allowance in their moral decisions for respect of the dignity, equal opportunities and the overall well-being of notyet-born people. First of all, taking into consideration future generations obviously is an inherent tendency of human beings. In Kantian terms, any moral statement that runs contrary to inherent human tendencies neglects an "imperfect duty" of ours, which, however, is exactly as morally binding as a "perfect" one. In other words, confining moral consideration to existing individuals is not what people normally do, nor is it morally justifiable; it seems that there is intrinsing wrongness in this type of reasoning (Peonidis, 2012). Hence, still in the Kantian tradition, any moral statement of the form: "one ought to act as if the human species would cease to exist right after one perishes" could never be morally justifiable or binding; such a will would only conflict with itself, since it would go contrary to the natural wish of humans to secure better opportunities for their off-spring.

One could also take a step further and examine if and in what degree insensibility and unconcern for the future generations is contrary to some "perfect duty" of moral agents. As Kant claims, a prefect duty consists in not acting according to moral principles that are self-defeating. Now, the principle that suggests that moral agents should not take into consideration future generations seems to be utterly self-defeating, because if such a maxim had been widely accepted by previous generations, the human species would have been extinct long ago; further on, if present generations abide by such a principle and do nothing about climate change, this would only be due to their reluctance to abandon an up to now dominant model of life and long-established customs; it would also be because existing at present moral agents would be unwilling to assume the burden of a model shift and would, instead, prefer to transfer the costs of any change to people not yet born. Thus, however, future human beings would be treated as just means to present human beings' ends; nevertheless, in Kant's view this would imply a clear violation of a perfect duty moral agents actually have, to never to treat other human beings merely as means to an end, but always at the same time as ends in themselves (Kant, 1993).

Conclusion

Climate change falls squarely within the domain of ethics: the problem has been human-induced, it affects people all over the planet by violating moral agents' fundamental rights, while it treatens the well-being of future generations. Any efficacious response to the challenge climate change imposes should weigh conflicting interests among different people, and it should incorporate notions of what is morally justifiable or pursuable; such a response should also need to re-examine the entire spectrum of relations between humans, as well as established priorities in life and dominant worldviews. While scientists and experts are able to estimate potential gains and losses and propose solutions accordingly, it is only up to human moral conscience to decide which option amongst the ones that are offered should be morally preferable. It is possible that an effective response to the problem of climate change might imply or necessitate that humans should be deprived of some of their conveniences, and adopt much more moderate – but also more sustainable – lifestyles. If this is the case, the only way to convince moral agents to do so is to invoke some morally compelling duty of theirs to undertake such a burden. And this is a challenge for ethics.

Vocabulary Notes

- <u>Argument</u>: (<lat. *argumentum*) a process of reasoning consisting in a connected series of statements or propositions (*premises*), which are intended to provide support, justification or evidence for the truth of the *conclusion*. The most usual forms of argumentation are by deduction, induction and analogy.
- <u>Duty</u>: an obligation we have as human beings on the basis of being a part (and in the context) of a moral community, such as to tell the truth or to care for our offspring.
- <u>Equilibrium</u>: (<lat. *aequilibrium*) an ideal condition of a system, in which all competing tendencies or influences are balanced due to equal action of opposing forces.
- Equity: (< lat. aequitas) the quality of being fair, impartial, just.
- Ethics: (< gr. *ethika*, *ithiki*) the branch of philosophy dealing with sets of moral values and general theories concerning good and evil, or proper and improper ways of conduct; an individual system of moral principles; rules of conduct applicable to specific branches of human action or groups (Buddhist ethics, dental ethics etc).
- <u>Fauna</u>: (< lat. *Faunus/Fauna*: the god/godess of earth and fertility in Roman mythology) all the animal life of a given place or time.
- <u>Flora</u>: (< lat. *Flora*: the god/goddess of plant life in Roman mythology) all the plant life of a given place or time.
- <u>Fossil fuel</u>: any naturally occurring carbon or hydrocarbon fuel, such as coal, petroleum, peat, and natural gas, formed by the decomposition of preexisting organisms.
- <u>Global warming</u>: an increase in the average temperature of the Earth's atmosphere, great enough to cause changes in the global climate.
- <u>Greenhouse gases</u>: atmospheric gases that cause or contribute to the greenhouse effect by absorbing infrared radiation produced by solar warming of the Earth's surface, such as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (NO₂), etc.
- <u>Imperative</u>: *adj.* something that is impossible to evade, deter or avoid; *n.* a command, an order.
- <u>Intellectualistic optimism</u>: (<lat. *intellectus*: mind; *optimus*: best) the tendency to expect the best possible outcome out of trust to human intellectual abilities.

- <u>Justice</u>: (<lat. *iustitia*) the quality of being just, fair; the administration and procedure of law.
- Modus operandi: (lat.) a specific manner of operating, functioning, working.
- <u>Moral agent</u>: a person who is capable of understanding the notions of right and wrong and act with reference to them in the context of a specific moral society.
- <u>Moral issue</u>: an issue concerning opposing interests, to which conflicting moral theories are applicable.
- <u>moral responsibility</u>: the situation in which a moral agent is compelled to act in a certain way.
- <u>Moral rights</u>: also called "natural rights"; are rights which are not contingent upon the laws, customs, or beliefs of a particular society or polity.
- <u>Moral status</u>: the quality of being a moral agent, or being endowed with specific moral values.
- <u>Moral values</u>: variables of a moral system, by virtue of which right is discerned from wrong, preferable from avoidable conduct; qualities ascribed to an individual, usually either as *inherent* (or absolute), or as *instrumental* attributes.
- Necessary condition: one that needs be satisfied for the statement to be true. For example, being a mammal is a necessary condition to be a human; it is not, however, a sufficient one (see below *sufficient condition*).
- Par excellence: beyond comparison; the most typical example of something.
- <u>Stratosphere</u>: the atmospheric layer lying between the troposphere and the mesosphere. The stratosphere is characterized by the presence of ozone gas (in the ozone layer) and by temperatures which rise slightly with altitude, due to the absorption of ultraviolet radiation.
- <u>Sufficient condition</u>: one that assures the statement's truth. For example, being intellectually apt is a sufficient condition to grasp sophisticated ideas, but it is not a necessary one.
- <u>Upshot</u>: a consequence.
- <u>Wishful thinking</u>: a cognitive bias in the context of which one, instead of resorting to evidence or rationality, one decides according to what seems pleasing to believe; the logical fallacy of arguing that because one assumes something to be pleasant, something is also true.

Answer the following questions:

- 1. How have Socrates' views influenced western ethics?
- 2. Do people always do what is right and abstain from what is wrong? Try to document your opinion.
- 3. Why are knowledge and moral responsibility mutually connected? Please provide an example.
- 4. Why are environmental issues of high priority to ethics?
- 5. What makes climate change a challenge for ethics?
- 6. Which are the most significant reasons we continue to use fossil fuels in such a degree?
- 7. Which are the actual consequences of global warming?
- 8. Which are the moral implications of climate change?
- 9. Are we morally accountable to the future generations?
- 10. Can we have moral duties towards inanimate beings and formations, such as trees, rocks and landscapes?

EXERCISES

A. Match the words or phrases of Column A with the words of Column B.

| 1. global | a. justifieble claims |
|-----------------------|------------------------------------------------------|
| 2. hydrocarbons | b. responsibilities |
| 3. moral rights | c. warming |
| 4. duties | d. fossil fuels |
| 5. balance | e. logical falacy |
| 6. wishful thinking | f. capable of acting in reference to right and wrong |
| 7. moral agent | g. extended moral considera- tion |
| 8. future generations | h. equilibrium |

- B. Find if the following are True or False.
- 1. No one does wrong willingly.
- 2. True knowledge of what is right and wrong necessarily leads to the right decision.
- 3. Climate change is due to strategic decisions concerning the way progress and growth should be pursued.
- 4. On grounds of equal consideration and equity all people should have a fair share in economical development, irrespective of whether this might threaten the environment or not.
- 5. The developed countries are morally responsible for providing the developing ones with the means of environmental-friendly and sustainable development.
- 6. Economic and industrial policies should become issues of international negotiation and consent.
- 7. The notion of progress at any cost is self-defeating.
- 8. All existing beings should be granted the right to continue existing.
- 9. Moral agents might well have duties towards future generations.
- 10. Reversing the grave situation concerning climate change and saving the planet could be deemed a perfect duty according Kantian ethics.

C. Complete the following chart:

| Verb | Noun | Adjective |
|----------|---------------|-----------|
| argue | | |
| | justification | |
| | account | |
| estimate | | |
| | dominion | |
| | development | |
| | | grown |
| | disagreement | |
| | | affected |

D. Fill the blanks with a suitable word.

| Socrates has | a highly influen | ntial figure in | n ethics. He st | ressed |
|----------------------|----------------------------|-----------------|-----------------|---------|
| the role of | in moral | reasoning. | Knowledge | is a |
| co | ndition for moral respons | sibility. Peop | ole today kno | w that |
| climate change may | y all life | from the fa | ace of earth. | There- |
| fore moral agents a | re being held morally | | _ for their dec | cisions |
| concerning the cont | inuation of the situation. | Apart from | the duties the | y have |
| towards existing fel | low humans, they might b | e acknowle | dged duties to | wards |
| future | , for if the situation is | not drastica | lly changed, l | human |
| off-spring will be _ | of possibil | ities and | | |

References

Aeschylus (1990), *Prometheus Bound*, translated by James Scully and John Herington, New York: Oxford University Press.

Broome, J. (1992), *Counting the Cost of Global Warming*, Isle of Harris, UK: White Horse Press.

COMEST (World Commission on the Ethics of Scientific Knowledge and Technology) (2010), *The Ethical Implications of Global Climate Change*, Paris: United Nations Educational, Scientific and Cultural Organization.

Gardiner, S. (2004), Ethics and global climate change, *Ethics*, 114, pp. 555-600.

Grubb, M. (1995), Seeking fair weather: ethics and the international debate on climate change, *International Affairs*, 71, pp. 463–96.

Houghton, John. 1997. *Global Warming: The Complete Briefing*. 2nd ed. Cambridge: Cambridge University Press.

Jamieson, D. (2003), *Morality's Progress*, Oxford: Oxford University Press.

Kant, I. (1993), *Groundwork of the Metaphysics of Morals*, New York: Hackett.

Lomborg, B. (2001), Global Warming, In: *The Sceptical Environmentalist*, edited by Bjorn Lomborg, pp. 258–324. Cambridge: Cambridge University Press.

McLuhan, Marshal. 1964. *Understanding Media*. Berkeley: Gingko Press. Ovid. 1998. *Metamorphoses*, translated by A. D. Melville. New York: Oxford University Press.

Peonidis, Filimon. 2012. Kant's Not So Bad Speciesism. In *Animal Ethics: Past and Present Perspectives*, edited by Evangelos D. Protopapadakis, pp. 141-150. Berlin: Logos Verlag.

Plato. 1998. *Gorgias*, translated by Robin Waterfield. New York: Oxford University Press.

Russsell, Bertrand. 1967. A History of Western Philosophy. London: Simon & Schuster/Touchstone.