

Ethics of the Environmental Crisis

edited by Carlo Burelli Davide Pala



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Registrazione presso il Tribunale di Torino, n. 2845 del 7.2.1979

Proprietario: Ugo Gianni Rosenberg Direttore responsabile: Tiziana Andina

Editore: LEXIS Compagnia Editoriale in Torino srl, via Carlo Alberto 55 - 10123 Torino

Stampa: Digitalandcopy sas, Segrate (MI)



n.s., 75 (3/2020), anno LX

Title: Ethics of the Environmental Crisis

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ontological reflection on the environment

Tiziana Andina CLIMATE ISSUE: THE PRINCIPLE OF TRANSGENERATIONAL RESPONSIBILITY

Abstract

The multidimensional nature of climate change makes it a complex matter, on both the theoretical and practical planes. The urgency and centrality of the issues and problems it poses are of key importance for our species and its survival. In this paper, we propose pairing the principle of common but differentiated responsibilities – the cornerstone of climate talks over the last thirty years – with the criterion of transgenerational responsibility. Such a criterion seeks to focus particular attention on the issues of diachronic justice and, in particular, intergenerational justice.

1. Transgenerationality

The theoretical assumption we make throughout this paper is that considerations concerning transgenerationality can be of benefit to the assessment of the problems tied to climate change. Before addressing the question of climate change itself, however, we need to define what we mean by transgenerationality and transgenerational actions. We use the term "transgenerationality" to denote the bond that unites different generations. That bond can take two forms. The first is the biological bond that emerges in what binds parents to children, and which takes on a peculiar psychological structure in the relationship between mother and child. The second is the bond that unites, over the course of history, different generations. It is that second bond that is of specific interest for the discussion of social reality, as it underpins and shapes certain social actions that

Rivista di estetica, n.s., n. 75 (3/2020), LX, pp. 17-32 © Rosenberg & Sellier

¹ For a more in-depth discussion see Andina 2016.

² For a more systematic treatment of the issue see Schützenberger 1998.

we will call "transgenerational actions." The underlying idea is that transgenerational actions have their own unique structure, which needs to be understood if we are to describe social reality in any suitable way.

Focusing attention on the transgenerational bond means, first of all, shifting attention in the study of social reality from its synchronic structure (its foundations, main social agents, dynamics, normative apparatus, etc.) to its diachronic structure, wherein lie the conditions that enable a society to endure over time. As widely noted in philosophical debate,³ that means that the question of the passage of generations and their entry into a certain social structure and a certain political model is of primary importance for at least two reasons. Firstly, because such a passage is necessary, to which there can be no alternative, unless we think of atomic societies, which do not last long enough for complex, long-term social actions to be developed. Secondly, because it is a model based on the assumption of implicit consent – neither requested nor, indeed, requestable - which certain generations, those that come before, generally consider to be self-evident and granted by those that will follow. Clearly, however, such consent is neither self-evident nor implicitly granted, given that the moment in which it is invoked by social agents, it calls for greater awareness and attention from an ethical point of view. Finally, such a model implies, in the background, a delicate question of transgenerational justice.⁴ Climate change, as we shall see, is an exemplary case, from all these points of view, as it is a field in which transgenerationality is of decisive import, one where typically each of the social agents involved performs actions of a transgenerational character. So let us take a brief look at what we mean by transgenerational actions.

2. Transgenerational actions

By "transgenerational actions" we mean a particular kind of social action that is characterized by its considerable duration over time. Such duration has implications that in themselves are quite peculiar. To begin with, the first implication concerns the fact that the decision-makers of such actions put into motion processes that, to be brought to term, require the cooperation of other social agents who played no role in the original decision-making process. Now, let us suppose that a certain action x is initiated by a certain generation. And let us suppose that x coincides with the intensive use of fossil fuels to start-up the electrification process of an under-developed country. Electrification is a complex process, one that requires a very lengthy period of time to be achieved in full. Therefore, it is evident that

³Limiting ourselves to classical thinkers, see, for example, Kant 2011: 250; Hume 1971: 866-886.

⁴ For a initial survey of the matter of transgenerational justice see Tremmel 2009, de La Recherche Scientifique Axel Gosseries *et al.* 2009, Tremmel 2006, Westra 2006, Dobson 1999.

the policy-makers who authorize the set of actions that fall within the scope of x must believe that future generations will continue to pursue x with more or less the same spirit with which they have done so, espousing the same underlying values and strategies. Thus, they will implicitly assume that future generations grant their consent to x and to the actions required to achieve x.

There are two observations in particular that are important to note here. The first is that future generations, being a fictional entity, cannot grant consent of any kind. So to assume that they would consent to x if they were asked to is rather far-fetched, to say the least. But as far-fetched as it may be, the assumption is nevertheless not without its practical utility, as ultimately it permits the decision-makers who choose to pursue x to initiate x on the presumption that it will be brought to term by someone, namely by future generations. It is worth noting that the fictional entity "future generations" plays a decisive functional role in this process. For the decision-makers who choose to pursue x not only rely on future generations (indeed, they are gambling on their future existence), but they rely on that fictional entity, once it becomes real, behaving just as they have decided and assumed it will behave. For instance, they assume they will help repay in the future the public debt they contract now. The second observation is that, as a fictional entity, future generations have some interesting characteristics. As an entity, their ontological status envisages the passage from potentiality to actuality (sooner or later they will exist), and they are necessary for transgenerational actions to be accomplished. Thus, it is assumed that they will undertake the commitment, without, however, having ever decided to pursue x or anything necessary for x. This last point obviously entails important consequences on the practical and ethical planes.

Let us now turn to the climate issue.

3. Climate change: A brief history

The issue of climate change is eminently transgenerational in nature. In this paper, we shall present the arguments supporting that statement by exploring what we know – mainly in terms of scientific data – about climate change and its anthropogenic causes. We shall also discuss the actions that should be performed by the authorities with the power to limit as far as possible the as yet difficult to predict, but extremely dangerous, consequences tied to climate change. Finally, we shall argue in favour of the idea that the main principle adopted to steer world climate diplomacy – the principle of common but differentiated responsibilities – needs to paired with what we will call the principle of "transgenerational responsibility."

So let us start by asking how we can conceptualize climate change.

Climate change is a problem of collective action not only at the intragenerational level, but also and above all at the inter-generational level. Each generation has its reasons to maximize its emissions and pass on their costs to future generations. According to some authors, what structurally holds back policy action against climate change is not so much international disagreement between states over how to divide up the costs and obligations [...], but rather the implicit and tacit generational agreement on the economic rationality of deferring the costs of such action as far as possible, transferring them onto future generations. After all, the latter have no way of protesting or incentivizing alternatives, either positively or negatively, and can only submit to the deferments of the present.⁵

The idea that we will argue in support of is that once social agents become transgenerational agents, or, namely, agents who decide to pursue actions of transgenerational scope, deferment, as exemplarily denounced by studies concerning climate change, is not a morally acceptable stance. That is true because present generations, in burdening future generations with a series of obligations, generally refuse to consider those future generations as having rights. In other words, if future generations are duty bound to pay the debt contracted by the generations that come before them, they are granted no entitlement to demand that such debt be contracted for reasons that bring benefits to them as well, or that the amount of debt should be sustainable. Such an attitude should therefore be stopped, or minimized at least, in concrete policy action.

Article 3 of the 1992 United Nations Framework Convention on Climate reads:

- 1 The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.
- 2 The specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, and of those Parties, especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the Convention, should be given full consideration.⁶

Protecting the climate is an obligation that binds present and future in the name of ensuring that the planet is able to survive – or, in more general terms, in the name of the idea that being should generally prevail over non-being. The underlying assumption here implies two arguments, one of a metaphysical nature, and another of an ontological nature. If we assume the idea that being should prevail over non-being is essentially binding, *then* the transgenerational

⁵ Di Paola 2015: 107.

⁶United Nations Framework Convention on Climate Change 1992, https://unfccc.int/resource/docs/convkp/conveng.pdf (accessed: 26 September 2020).

constraint in climate matters is unavoidable. That general premiss, of a metaphysical and moral nature, must therefore lead to its necessary consequences on the ethical plane. Alongside the metaphysical argument, there is the argument concerning the ontological status of future generations. Given that we make specific demands of future generations, we treat them as an entity – an entity to which we attribute duties. Thus, it would seem necessary to treat them as an entity also with rights. The metaphysical premiss – being is better than non-being⁷ – plays a fundamental role in the case of climate change because, as we shall see very soon, the scientific data, as complex as they are to read, all appear to point to a consensus in saying that if the anthropogenic impacts on the climate are not contained, humankind, whether directly or indirectly, may well find itself in a position of not being able to guarantee that being prevails over non-being in relation to the preservation of life on Earth. That means that the hierarchy of criteria that has long been taken into consideration in assessing climate change needs to be rethought.

An important premiss must be posed before taking our discussion further, which is that the climate has always changed. Over the course of its millenniallong history, the Earth has witnessed ceaseless transformations in its climate. That is the part of the story generally endorsed by climate revisionists, those who attempt to minimize or deny outright the active and decisive role that humans play in driving climate change. In other words – and this is the fact on which there is near complete agreement in the scientific community – climate matters have taken on a whole different connotation ever since humans, as of a certain historical era, started pursuing activities that undermine the planet's natural capacity to absorb greenhouse gases. Such activities are the consequences

⁷A comparable premiss, in a similar context, is defended by Jonas 1979.

⁸ The paradox outlined by Derek Parfit (1982) merits close consideration. It has long been held up as an argument against the idea that it makes sense to protect future generations, on the grounds that, in a nutshell, climate action would alter the climatic and environmental conditions to which life generation processes are extremely sensitive. Thus, it could turn out that the generations we seek to protect may never see the light, in the sense that other individuals may be born in place of those that would be born under certain conditions. If that is the case, then any action taken to protect future generations may provoke more serious damage than what we are trying to avoid. Parfit's position is quite clearly a deflationist one, in that it reduces future generations to the individuals that make them up. In metaphysical terms, however, that is just one option among others available. Another option is to conceptualize future generations by treating them, for example, as entities not reducible to the individuals that make them up, but as such as fictional entities with the characteristic of passing from potentiality to actuality. Assuming that the argument of being prevailing over non-being, as a general principle, transcends the specificity of the single individual, I believe that treating future generations as abstract artefacts with the characteristic of passing from potentiality to actuality enables us to avoid the problem posed by Parfit - a problem that, curiously, in seeking to protect the single individual endorses a position that would risk destroying the human race itself, resulting in exactly what Parfit seeks to prevent, namely, the destruction of the single individual.

of actions aimed for the most part at industrial development, and hence they are largely unwanted consequences. But still, they are there.

The crucial point that climate revisionists tend intentionally to underestimate is the role and weight borne by human activities in driving environmental and climate change. In other words, if it is true that the climate has always been transformed by endogenous causes tied to transformations in the "Earth System," it is just as true that, commencing more or less as of the turn of the nineteenth century, when the effects of the first Industrial Revolution began to unfold across the major European nations, the weight of human intervention in environmental and climate change has become crucially more important and even decisive.

Climate change is an ecological phenomenon. The average surface temperature of the Earth is rising – more precisely, it is almost one degree Celsius higher than it was at the start of the nineteenth century. When scientists speak of climate change, they refer to higher concentrations of greenhouse gases in the atmosphere and a lower capacity for the Earth's natural systems to absorb those gases. For the most part of its history, the Earth System handled that capacity rather well, remaining largely in equilibrium. Today, that equilibrium has been undermined by causes that are, as we said, largely anthropogenic in nature. That is, they can be traced back to human action and to the prolonged and massive use of fossil fuels to power industrial processes ever since the first Industrial Revolution (dating more or less from 1760 to 1850). Those processes have significantly raised the living standards of millions of people over many generations, progressively reaching wider and wider swathes of the planet. The Industrial Revolution of the nineteenth century, as with the subsequent revolutions that have taken place, especially in the West, involved complex processes investing a variety of different aspects of society, in many cases not without conflict. In net terms, the industrialization of manufacturing activities, as well as agriculture, helped reduce poverty greatly, bringing progressive improvement to living standards and considerably lengthening the life expectancy of people.

The transgenerational nature of the industrialization process is quite evident, given that it unfolded over a rather lengthy period of time. And in many ways, it is not yet over, considering we are now at the threshold of the fourth industrial revolution, what has come to be known as Industry 4.0. It is known that industrialization processes, in the short term, bring critical problems, as distinctly captured by the concept of "creative destruction," introduced by the Austrian economist Joseph Schumpeter. From a diachronic perspective, however, industrialization and technological transformation processes would appear to call for

⁹ For an in-depth discussion of the social aspects of the first Industrial Revolution see Thompson 1968.

¹⁰ Schumpeter, Zuffi 2001.

a more complex assessment. In other words, if we judge the processes unleashed by the industrial revolutions from a transgenerational perspective, weighing up the costs and benefits would appear to give a positive outcome – over the much longer term, for instance, those societies have significantly increased the living standards of their citizens.

Yet, in this context, the climate issue serves to remind us that all that is only a part of the picture. The other part, in fact, concerns changes to the climate caused by human activity.

But what are we talking about exactly? What is actually happening to the climate? The answer can be condensed into a nutshell. Since the turn of the nineteenth century, industrialization processes have required the increasingly massive use of fossil fuels, indispensible to support the spread of electrification processes. Among the most striking side-effects of that we find issues tied to social equality, above all, but also the loss of jobs, especially unskilled jobs, as such workers are replaced in many cases by machines, all of which has been widely studied by social scientists. For a long time, the climate issue was not considered a problem, ultimately because it took many, many decades for the consequences tied to the massive use of fossil fuels to emerge clearly. The consequences tied to, or provoked by climate change gradually became clear first of all to scientists. Once the findings of their climate studies were reasonably verified, however, a negationist counter-strategy was put into place by certain lobbies, united under the Global Climate Coalition, concerned that nothing substantial should change as a result of climate policies. The economic interests at threat were (and are) too many and too great, and hence the ultimate objective of the climate change deniers was to minimize the impact on public opinion of the evidence emerging from scientific research.

Let us look at some dates. In 1965, then U.S. president Lyndon Johnson presented the climate issue to Congress. That means that already back then there was sufficient scientific evidence to suggest that world temperatures were rising and that human activity was a determining factor in that process. The fact is significant because it shows that as early as the 1960s/70s climate change was gradually emerging as a collateral effect of the industrialization process across the world. Indeed, what was becoming clear was the idea that anthropogenic climate change could bring harmful effects. In terms of political and public responsibility, we can talk of a before and after the awareness of the anthropogenic roots of climate change. Today we know that virtually any human activity produces greenhouse gases, from the most basic activities that enable us to live, or live decently, to the most complex industrial activities. The economic development that has brought such widespread well-being and relative affluence also concealed a poisoned seed that has grown to threaten the very survival of the planet. Knowledge of such a state of affairs is important for two reasons. First of all, because knowledge and awareness of what is happening on the climate front is indispensible to open up room for negotiations to reduce the damage and its fallout. Secondly, because on the moral plane, there is a huge difference between knowing and not knowing. Once the veil of ignorance has been raised, there are two options available to us: to take action or to abstain from action, in the pretence that things can continue as they are. The abstentionist option substantially means steering the future in a direction for which, ultimately, we have good reason to believe that non-being will prevail over being.

Let us get back to the facts. The turning point for climate change research came in 1988, when governments agreed to set up the Intergovernmental Panel on Climate Change (Ipcc), 11 a research institution bringing together scientists from all around the world. The Ipcc has published its findings in a series of assessment reports that have always stressed two points very clearly: the anthropogenic origin of climate change since the early nineteenth century; and the harmful nature of such change. As the Ipcc's findings grew, after a few years the deniers adopted a more precise obstructionist strategy. In 1989, the Global Climate Coalition, made up of oil companies, the United States Chamber of Commerce, and various manufacturers' associations, commenced a massive media counter-offensive over the issue, directly attacking the Ipcc's work and often not disdaining personal attacks on the Panel's members. The main argument pushed by the climate change deniers was simple and fallacious. The point, they claimed, is that to fund such radical action against climate change, scientists needed to present evidence that was 100 per cent certain on the anthropogenic causes of the climate's degeneration. Since the sciences cannot provide such certainty - as is consistent, it should be recalled, with the epistemological structure of scientific knowledge – it makes no sense to promote actions that would lead to a decline in growth and affluence. Faced with the uncertainty of the science, they argued, it is better to stick with the certainty of economic growth. In short, better the devil you know.

The specific argument put forth by the climate change deniers is incompatible with the type of knowledge produced by science. Nevertheless, thanks also to the unscrupulous use of mass media, 12 it generally proved to have a good hold on public opinion as a retort to arguments that attempted to highlight the urgency of climate protection measures. The scientific evidence today largely all points to human activity as one of the main causes driving the harmful effects of climate change, underpinning the consensus that if major corrective action is not taken, the planet is destined towards an ontological reversal, where instead of being prevailing over non-being, as it always has, we may be faced with a

¹¹ The Ipcc's assessment reports, along with more recent studies and considerations on the future of climate change, can be found on the website https://www.ipcc.ch/about/ (accessed: September 2020).

¹² On this (Anderson 2011) and the question of post-truth in the climate debate see (Condello, Andina 2019).

period of non-being prevailing over being. In other words, from a diachronic perspective, the most likely outcome is that world temperatures will rise by such a degree as to throw the self-regulation mechanism of the Earth System out of whack, with potentially devastating consequences.

4. The dual strategy

A fundamental milestone was reached in 1992, when the United Nations Conference on Environment and Development was held in Rio de Janeiro. The organizers hoped to forge an agreement that would reconcile various interests and would enable action to be taken to substantially reduce global greenhouse gas emission levels. 13 From an ethical point of view, it was about striking a smart balance between rights and duties, costs and benefits. It was clear for all to see that the world's most advanced economies had drawn major economic benefits, as the greatest emissions had come from the industrialization processes of those countries. Processes that had, in turn, brought wealth to the populations that had pursued them. On the other hand, the containment of emissions would hit developing countries most, those which needed to emit greenhouse gases to electrify their industrial processes. An action strategy was thus outlined, envisaging two stages. During the first stage, choices were to be made to permit emerging economies to complete their industrial development. Those economies needed to grow to bring improvement in living standards for local populations. Only at that point would stage two begin, where developing nations would be called upon to start capping their emissions. In the meantime, the greatest efforts were to be pursued by rich-world countries, those that had drawn the greatest benefits from industrialization processes.

The principle steering the agreements forming the Rio Convention is known as the principle of common but differentiated responsibilities. The inspiration behind the principle is simple and reasonable. Under the model adopted, during the first stage, the greatest sacrifices were to be made by rich countries. They were to commit to reducing emissions more than others, developing the scientific research to spread the use of low-impact energy sources, and fostering technological transfer to poorer countries to enable them to play an active part in international cooperation to combat climate change. While the principle may have been fair in terms of equity and justice between nations, rather different conclusions can be drawn as to its effectiveness, given how much it matters when it comes to policy. The principle of common but differentiated responsibilities, when left to the concerted application of international cooperation, ultimately failed, in the sense that it was never applied. Although the principle

¹³ For a detailed look at the history of the social and political events that brought to the explosion of the climate issue see Di Paola 2015: 43ff.

was formally adopted at the end of talks at the Rio conference, the United States and oil producing nations in practice undermined any attempt to apply it concretely by preventing the identification of precise action objectives and realistic time-frames.

Their obstructionism soon led to the near total failure of any serious climate negotiations, as witnessed by another two key dates. The first is 1997, the year the Kyoto Protocol was signed by 191 countries. It committed its signatories to reducing greenhouse gas emissions by an average 8.65 per cent on 1985 levels, considered the base year for measurements. The emission targets applied to the years 2008-2014, but as we know today, they were never achieved. Also in this case, policy decisions by the Usa played a major role in determining the failure of the common commitment. The second key date is 2009, when the Copenhagen climate conference was held, marking what was meant to signal a complete overhaul of global climate policies. Leading the U.S. delegation was Barack Obama, who promised a very different approach to climate change compared to the stance taken by the U.S. presidents who had come before him, in particular George W. Bush. Yet, despite Obama's sensitivity to the issue, the outcome of the Copenhagen conference was once again a failure, demonstrating to the world how the approach adopted for over thirty years to forging climate policy – an approach based on international cooperation and negotiation – had largely failed. A combination of national egoisms and diffidence between states – especially the mistrust harboured by developing nations of advanced economies and the decisions they would make - resulted in the collapse of cooperation policies and a substantial breakdown in talks. The consequences were those that we find ourselves faced with today. With the joint negotiation process essentially at a dead end, nations have begun pursuing their own policy objectives, largely to little effect. Making it much more difficult to achieve concrete targets, and virtually impossible to apply principles of justice on the wider scale.

5. The Principle of transgenerational equity

It must be reiterated how complex the question of climate change is. Whether we address it from the perspective of the application of principles of justice, or discuss the matter of corrective measures aimed at reducing greenhouse gases, the issues all overlap and intertwine inexorably. There are, in fact, two planes that need to be taken into account by scholars and lawmakers concerned with adverse climate change and its harmful effects. On the one hand, we have issues tied to the application of the principles of equity and justice among nations, along with the right of human beings to live a happy life – this aspect we will call the "synchronic plane of justice." On the other, we have issues concerning inter-generational justice and the right of new generations to come into being – this aspect we will call the "diachronic plane of justice". One of the critical

problems made all too clear by climate change is that the issue is, to all intents and purposes, multidimensional. It allows for a plurality of conceptualizations and implies the involvement of a plurality of agents who play some part in the matter, ultimately bearing economic, social, political, and cultural implications. The climate issue straddles both the synchronic and diachronic planes of justice, highlighting not only the urgency with which both those planes need to be addressed, but also the pressing need to determine their hierarchy. There are good arguments to demonstrate how the two planes do not overlap perfectly. A significant reduction in poverty in a certain country, for instance, can be achieved by creating greater overall wealth, that is, by intensifying the level of industrialization of society. But, as we have seen, that will have the collateral effect of raising emissions, exacerbating the climate problem for new generations to come. Hence, in such a case, the synchronic and diachronic planes are not coextensive, leaving us with a complex knot of issues that are not easy to untie.

The principle of common but differentiated responsibilities represents the cornerstone on which global climate talks have patiently been constructed. It is underpinned by four pillars: historical responsibility, equity, capability, and vulnerability. Equity, capability, and vulnerability, as we shall see in more detail further on, are all criteria that lie on the synchronic plane of justice. Historical responsibility is the only criterion that grasps the diachronic plane, but here it solely concerns the past. Thus it is diachronic in an important way, but only partially. The criterion of historical responsibility is based on statistics that show how some countries have contributed much more heavily to greenhouse gas emissions than others, due to the industrialization processes of their economies. Thus, it would appear reasonable to expect that those countries should assume greater responsibility for reducing emissions. Moreover, the biggest emitters are generally also the richest nations, for hence, in terms of equity, it would seem fair that the nations with the greatest historical responsibility for emissions should be the first to tackle the problem of emissions. As such, greater efforts are asked of countries in a better position to bear the economic and social costs of the fight against climate change, while paving the way for poorer countries to actively join the struggle at a future stage.

We have seen how awareness represents a fundamental discriminant. Knowing or not knowing – that is, having or not having the scientific data on which to base social and political decisions – is a fundamental element on which to build judgement, including the judgement of historical responsibility. There are good reasons, for instance, for us to attribute specific responsibility to countries that have proved to be the biggest greenhouse gas emitters starting from when science is able to provide data with certainty. As of that historical period, we can talk of direct responsibility because, quite clearly, the weight of responsibility becomes significantly greater when there is awareness.

As regards the principle of capability, the idea is that the nations that have benefited the most from emissions are also those that have the most sophisticated technological knowledge, and hence the best capability in terms of knowledge and development of relevant technologies. Even in this case, it would seem fair to assume that those same nations are best equipped to engineer innovative solutions to climate change. Finally, there is the principle of vulnerability. It is widely known that the poorest nations are also those most exposed to bearing the brunt of the adverse consequences of climate change. And that is true for various reasons. The main one is that poor countries generally do not have much in the way of funds to invest in efforts to combat climate change directly, or to finance measures to mitigate the effects of climate change. In general, such countries are unable to invest sufficiently in developing high-level scientific research and instead need funding to import technology from technologically advanced nations.

All the criteria we have mentioned tie into, and in some way depend on, the criterion of historical responsibility, on which they ultimately are founded. A criterion that steers us to examine historical responsibility can be expected to focus specific attention on what was done – consciously or unconsciously – in the past, thus offering a diachronic perspective that looks primarily to the past. Diachrony, however, means considering time in all its extension, that is, without neglecting the future. In the case at hand, the future is particularly important because it is the dimension in which the metaphysical criterion of being prevailing over non-being is at most serious risk. As such, I propose supplementing the criterion of historical responsibility with a complementary notion that I shall call the criterion of "transgenerational responsibility". The criterion of transgenerational responsibility encompasses a series of premisses:

- 1 Being is generally better than non-being;
- 2 There is a transgenerational bond that ties generations to each other, entailing rights and duties within the transgenerational sphere;
- 3 Transgenerational actions have a peculiar structure, entailing cooperation between generations in order for a certain action to be accomplished;
- 4 Social actions of a transgenerational nature must respect the transgenerational bond and be committed to steering the future in ways that will not prejudice or penalize future generations.

Climate change is driven by actions whose transgenerational structure was revealed as of a certain historical era, when the anthropogenic nature of adverse changes to the climate became evident. As we have seen, transgenerational actions imply a duty, at the very least, to steer the future in such a way as not to prejudice the right of future generations to come into existence. The principle of transgenerational responsibility requires that the criterion of vulnerability should be extended to future generations, and not just to the world's poor. If the principle of being prevailing over non-being is reasonably at risk, any prioritization required between defending the interests of poor populations and

defending the existence of future generations must necessarily take into account such a risk, which is absolute in nature.

The principle of transgenerational responsibility is exposed to the same type of objection that is often raised against the general containment strategy pursued in addressing climate change, and to ethical principles suggesting the need to reconcile the interests of generations living in the here and now and those of generations yet to be born. The main argument reconciling a certain reasonableness and humanity claims that the need to defend the rights of people living in extreme poverty would appear to prevail, in terms of urgency, over the need to defend the rights of people who are not suffering because they have yet to come into existence. Diminishing the amount of suffering would appear ethically preferable to preventing a suffering that has yet to exist because the sufferers have yet to exist. Nevertheless, we have seen how the principle of transgenerational responsibility points to a different perspective from which to address the matter, by shifting the emphasis onto two specific elements. First, there is the fact that future generations have the right to exist, assuming as a moral principle that being is generally better than non-being. Secondly, they have the right to exist because future generations represent a necessary premiss for transgenerational social actions. Without future generations, transgenerational actions, in the majority of cases, could not be brought to complete fulfilment. In other words, they would run the rather serious risk of resembling untenable promises. Thirdly, the transgenerational perspective would imply a certain political stance in relation to the world's poorer nations, which, as we have seen, are those that struggle most in finding the right resources to mitigate the effects of climate change. In other words, it is necessary that rich countries commit to transferring technology and knowledge to poor countries, as such transfer would help promote the technological and social development of those nations, thereby lowering poverty through greater economic development.

In its minimal form, the principle of transgenerational responsibility obliges us to accept the rights of future generations to come into being on the basis of two arguments: that being is better than non-being; and that future generations are fictional entities whose assumption, by the generations that precede them, enables transgenerational social actions to be brought to complete fulfilment. Such actions are crucial for societies to expand over time, enabling human life to achieve greater complexity and accomplishment. It can be argued, therefore, that the principle of transgenerational responsibility weakly binds each generation in relation to the future. That is to say, it does not commit present generations to offering future generations their same rights and living standards, but it does commit them to guaranteeing future generations the right to come into being. It makes sense here to ask whether a minimal bond of this kind satisfies us fully

and is sufficient to underpin a more general idea of transgenerational justice. In general, I believe the answer is "no".¹⁴

Nevertheless, within the restricted scope of the climate issue, recognition of the validity of the principle of transgenerational equity, together with the other criteria that underpin the principle of common responsibilities, enables concrete steps forward to be made towards the primary objective that is the preservation of the planet and its biodiversity. On the other hand, on a more general level we have seen how natural it is for social agents - ultimately all of us – to adopt the concept of future generations whenever it is decided to commit to long-term actions that require the commitment of future generations to be brought to term. Thus, for example, if a certain generation, let's say x, expects that other generations should assume the burden of paying the public debt that it has contracted to help lower the level of poverty in society and promote the industrial development of the country in which x lives and future generations will live - actions that, as we now know all too well, will have the collateral effect of emitting harmful greenhouse gases into the atmosphere, then in doing so x must acknowledge the right of those future generations to exist and accept the duty of guaranteeing that such a right can be upheld. In short, the metaphysical structure of transgenerational social actions, the use that social agents generally make of the concept of future generations in pursuing transgenerational actions, and the centrality of the future for a social reality that offers the possibility of achieving a fuller human dimension, all constitute good reasons to argue that present generations – given that they can and that it is part of the social structure they have constructed – should accept a binding commitment towards the future, doing all that they can to ensure that future generations have the possibility of existing. It is not a gift we offer to those who will come after us, but an obligation that is to be fulfilled, having accepted it because it was clearly to the advantage of those who did accept it.

Such a framework opens up the tricky question to be addressed of how to apply the principle of transgenerational responsibility on the practical plane, and in particular within the context of our democracies. In the current debate, there are, I believe, two overriding issues that call for urgent attention. The first is the general lack of public awareness of the obligation that every generation has towards the future. Yet it is an obligation that we accept whenever we expect that future generations will assume the task of fulfilling what we want them to fulfil. Given the general facility with which we assume future generations will do what we need them to do (thus attributing them duties), it is unclear why and for what reasons we should not grant them corresponding rights. The second issue is no less important and concerns the intrinsic difficulty that democracies

 $^{^{14}}$ For a more in-depth discussion of these issue, I take the liberty of referring readers to Andina, forthcoming.

face in dealing with the future in ways that are not exclusively parasitic. I believe there are good arguments to be made in support of the idea that if we expand our principles of justice to systematically encompass new generations, we will be forced to profoundly and carefully rethink the very idea and the mechanisms underpinning our democracies. And that is for a reason that is ultimately quite simple. Democracy is a form of government based on the sovereignty of the people, which guarantees each citizen the right to participate on an equal basis in the exercise of public power. In other words, it is a form of government based on the creation and preservation of consensus, specifically the consensus of citizens represented within the democracy. That means that those who have no access to representation – because they are too young, or because they do not have the right to vote, or because they have yet to be born – have no right to be represented, and indeed they are not. That is a major short-circuit in the system. For while, on the one hand, it explains why there is such concrete difficulty in steering the future that is emerging, as is particularly evident in our democratic systems, on the other, such an impasse risks seriously undermining the survival of our societies, which are already showing cracks caused by their substantial inability to steer the future by taking serious responsibility for it.

But that, obviously, is another part of the story.

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