

# The dispute about the climate non-identity problem – looked upon from the paradigm perspective

by Jörg Tremmel<sup>1</sup>

Since 2009 I have been writing a series of texts about the scope of the non-identity problem.<sup>2</sup> When I offered my argument – the insignificant-causal-factors rejoinder – to the community of moral philosophers, I had expected that colleagues would readily admit that they had been unclear about the methodological status of the climate non-identity problem (C-NIP). But nothing of this sort happened. In this short opinion piece, I try to explain different views on causality, using the paradigm theory.

My line of reasoning cannot be fully repeated here but a short form goes as follows:

(1) The NIP in biomedical contexts cannot be contested. As an illustration, I have used the case of a rape.<sup>3</sup> If an abortion is ruled out, this act will induce the existence of a particular child with a unique genetic endowment.

(2) The extension of the scope of the biomedical NIP to the context of climate change is problematic. The C-NIP is the view that our energy/climate policy is among the factors that decide the genetic identity of (distant) future persons. And if a risky climate policy is not harmful for them, as Parfitians claim, theories of climate justice need to be reassessed. I argued that these philosophers skip the causality question and move directly to a moral discussion. But their moral problems arise only if a very specific concept of causation is employed.

Imagine the following: In 2020, child A was born. One year before, the parents of A had met in a disco for the first time. Before entering this disco that very night, each of the prospective parents considered him/herself to be single, but wanted to enter into a relationship. In the club were hundreds of potential partners for each of the actual parents-to-be of child A.

Two years before, the US president had announced that he would leave the Paris climate agreement which led to a high emissions policy in the US during the following years. One of the coal mines

that was scheduled for closure in 2017 was in fact not closed under the Trump administration, and one of the people working there was AA, the father-to-be of child A. Had the coal mine been closed as scheduled by the Obama administration, AA would have moved to another city and he would not have met BA, the mother-to-be of child A.

Fifty years before, in 1968, a forest planting scheme took place in the Appalachians. This brought volunteers together, and one of them was AAA, the grandfather-to-be of child A. At that time he met the girlfriend of the grandmother-to-be (BAA) of child A. This girlfriend (BAA-X) introduced AAA to his later wife BAA, and without that gathering of volunteers in the Appalachian mountains, child A would not have been born in 2020.

Climatically, the year 1816 is known in Europe and North America as “the year without a summer”. During the calendrical summer, snow fell in New England and the sky was gloomy and dark all summer long (this extraordinary weather was caused by an eruption of Mount Tambora). Unlike in other years, the carpenter AAAAAA, the great-great-great-grandfather-to-be of child A looked (and found) work in the south of the newly founded United States. He had a short affair with a woman who became pregnant and gave birth to BAAAA, the great-great-grandmother-to-be of child A.

Around 700 years before the birth of child A, in the year 1320, one family in Central Europe made the decision to give up their farming existence and move to the city. At that time, European peasants suffered from what is today known as “the Little Ice Age”, that is a decrease of average temperatures (not induced by mankind). This also was one instant in the circuitous route that eventually led to the birth of child A.

2,000 years before the birth of child A, in the year 20 AD, a Roman legionary who had the best chances to become emperor was killed by a falling roof tile when he marched through the streets of

Rome. This particular roof tile was rendered loose by dry weather during that summer (and the weeks before). The logging of the forests in the Roman Empire had changed the climate regionally. The death of the Roman legionary (BAAAAAAAAAAAAAAAAAAAAA AAAAAAAAAAAAAAAAAAAAAA...-XTRLY...) was “decisive” in the potpourri of events in the sense that without this historic event, the great-great (...) - mother-to-be (66 generations back) of child A would not have been born.

For the sake of argument, we assume that all these incidents, acts and policies (and with them, a myriad more) were “causal” for the conception of child A. Now, what conclusions can be drawn from such a sequence, or rather potpourri, of events? There were incidents (the regional logging at 20 AD and US climate policy since 2017) that were human-induced climatic events (as such giving rise to non-identity problems). And there were incidents such as the eruption of Mount Tambora or the “Little Ice Age” that were not anthropogenic thus being (non-)identity events, but not giving rise to moral (non-)identity problems. The distinction between the (non-)identity effect and the (non-)identity problem should be clear by now. It requires a two-fold analysis, the first one being epistemological, the second one ethical. Moral philosophers are often ill-equipped to deal with the former, which may be a reason why they tend to jump to the latter. But the causality discussion is antecedent to the morality discussion, and the latter depends on the outcomes of the former.

(3) The Parfitian concept of causation takes into account too many *necessary* conditions, among them “insignificant” ones. The underlying rationale of the “insignificant-causal-factors rejoinder” is that the Parfitian concept of causation is at odds with the concept of causation that is usually used in law and science.

One example from the judicial sphere: if a man, out of anger, sets fire to the car of his girlfriend, he caused the flame. It is true that the car would not have burned if there were no oxygen in the air that surrounds the car. But the oxygen still is not “causal” in the burning of the car. At best, the oxygen is an auxiliary condition. When a judge lists the causes for the arson in his summing up, he will only consider the significant causal factors.

In a related but different way, statisticians (including climate scientists who use statistics) cut causation chains short. Everyone knows (or should know) the statistician’s favourite phrase: correlation is not causation. But to describe the statistical concept of causation is actually quite technical, involving terms such as regression analysis, (in)significance levels and one-way analysis of variance. It might suffice here to say that their concept is incompatible with the Parfitian concept of causation.

To justify his view on the climate NIP, Parfit uses the following picture in his energy/climate ethics article: “As we have seen, children conceived at different times would in fact be different children. So the proportion of those later born who would owe their existence to our choice would, like ripples in a pool, steadily grow.”<sup>4</sup> The ripple analogy is very instructive, but in reality it differs from the way Parfit used it. We must rather think of a pond into which a great number of stones are thrown simultaneously at every moment in time (not just one after another always at the same spot). Their waves and ripples will superimpose on each other and create a picture that looks very non-linear, or chaotic. Now refine this analogy and imagine that the stones are of differ-

ent sizes, from small pebbles to rocks.<sup>5</sup> The item that symbolises the (risky) high emissions policy will make a ripple but all the other items will also make ripples, sometimes much bigger ripples.

The waves and ripples obviously hit the shore somewhere. Now, imagine that at one specific point of the shore there is a measurement station that measures the height of each and every incoming wave. Think of a floater that moves vertically at a pier. A signal sounds as soon as incoming waves have a certain height, say 10cm. The higher the incoming waves, the louder the signal. But the scientists have set the measurement mechanism in a way that small ripples (less than 10cm) do not trigger any signal. All stones are causal for a certain height of an incoming wave (= all antecedent acts or events that were decisive for the birth of child A), but the range of the waves and ripples between zero and 10cm can be considered “insignificant”. That does not mean that the causal acts or events (climatic incidents at different times) did not exist, but their explanatory power is too weak, statistically speaking.

Did my argument change the debate? No. Interlocutors kept telling me that for the C-NIP to hold, all that is required is that *if* a particular policy were to happen, then a different combination of sperm and egg would result.

I still think that the insignificant-causal-factors rejoinder is sound and that it refutes anyone who states that there are no intergenerational climate duties because of the C-NIP. Likewise, the Parfitians continue to think that this is a “real world problem” and that it was not relativised by my argument. Someone must be wrong here, one might conclude. But there is maybe a third possibility, namely the paradigm perspective as outlined by Thomas Kuhn in 1962.<sup>6</sup> Kuhn describes some turning points in the understanding of the world. According to Kuhn, the introduction of novel theories regularly and rightly provokes resistance from professionals whose particular field is concerned. Kuhn believes that resistance to new ideas is legitimate because it is the only way to make so-called “normal science” (science outside revolutionary times with paradigm shifts) possible. He holds that only through normal science can an academic community first explore the potential reach and accuracy of the older paradigm and then work out the difficulties through the study of which a new paradigm may emerge.

Thus the third possibility is that both sides are right – each one within their own paradigm. This could explain why well-intentioned and smart philosophers cannot agree. If adherents of the different paradigms are asked to review submissions of the other camp, sheer incomprehension may be the result.

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## Notes

1 This is an abridged version of a 3000-words opinion piece with the same name which is available online (see footnote 2). The acknowledgments are in the original version.

2 The ones that are written in English are (1) Tremmel, J. (2009): *A Theory of Intergenerational Justice*. London: Earthscan, 35-46; (2) Tremmel, J. (2014): *The Non-Identity Problem: An Irrefutable Argument against Representation of Future Generations?* In: Enders, J. / Remig, M. (eds.): *Theories of Sustainable Development*. London: Routledge, 126-144; (3) Tremmel, J. (2018):

Fact-insensitive thought experiments in climate ethics – Exemplified by Parfit’s non-identity problem. In: Jafry, T. (ed.): *The Routledge Handbook of Climate Justice*. London: Routledge, 42-56. All texts are available at <https://www.researchgate.net/project/Nonidentity-problem-in-the-context-of-intergenerational-justice-English-language-texts>, including the unabridged version of this opinion piece here.

3 Tremmel (2018), 42 (see footnote 2).

4 Parfit, D. (2010): *Energy Policy and the Further Future. The Identity Problem*. In: Gardiner, S. M. et al. (eds.): *Climate Ethics: Essential Readings*. Oxford: Oxford University Press, 112-121, here 113.

5 I spoke of “butterfly effects” and “eagle effects” in Tremmel (2014) (see footnote 2).

6 Kuhn, T. S. (1962): *The Structure of Scientific Revolutions*. Chicago: Chicago University Press.