THE CASE FOR INTERGENERATIONAL JUSTICE IN THE «ANTHROPOCENE ERA» FROM FINANCIAL TO ONTOLOGICAL DEBT

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What can political philosophy tell to Greta Thunberg?
Topics

• 1. In the outer limits of justice theory.
• 2. Looking for a binding burden model in the 18th century.
• 3. Jefferson and the debt paradigm.
• 4. From Financial to Ontological. The case of Climate Change within the debt paradigm.
• 5. Conclusions.
In the outer limits of justice theory
Complexity of the topic

• “We must now consider the question of justice between generations. There is no need to stress the difficulties that this problem raises. It subjects any ethical theory to severe if not impossible tests.”

Two types of difficulties

• We don’t know if the current concept (s) of justice will be identical to that (or to those) shared by the coming generations. We lack, therefore, the scale that could measure the “justice” of our acts towards those who aren’t born yet (Ball, 1985).

• Departing from ethics to legally binding rules, we face also the anomaly of the asymmetric reciprocity.
The task of each generation

• “Each generation must not only preserve the gains of culture and civilization, and maintain intact those just institutions that have been established, but it must also put aside in each period of time a suitable amount of real capital accumulation (...) investment in machinery and other means of production to investment in learning and education.” John Rawls, *ibidem*. 
Are we up to the task?

• “To assign a more specific date to the onset of the 'anthropocene" seems somewhat arbitrary, but we propose the latter part of the 18th century, although we are aware that alternative proposals can be made (some may even want to include the entire holocene). However, we choose this date because, during the past two centuries, the global effects of human activities have become clearly noticeable.”

Looking for a binding burden model in the 18th century
Justice and time, a new problem

• “The question whether one generation of men has a right to bind another, seems never to have been started either on this or our side of the water. Yet it is a question of such consequences as not only to merit decision, but place also, among the fundamental principles of every government.”, Thomas Jefferson, letter to James Madison 06.09.1789
A question within the «Zeigeist»

• “How will our distant fellow humans be able to understand the burden of history that after some centuries we will pass to them” (Wie es unsere späten Nachkommen anfangen werden, DIE LAST VON GESCHICHTE, die wir ihnen nach einigen Jahrhunderten hinterlassen möchten, zu fassen), Kant, 1784, VIII, 30-31.
What model for a binding burden?

• “Society is indeed a contract. (...). It is to be looked on with other reverence; because it is not partnership in things subservient only to the gross animal existence of a temporary and perishable nature. It is a partnership in all science; a partnership in all art; a partnership in every virtue, and in all perfection (see next slide)
A dynamic contract between generations

(…) As the ends of such a partnership cannot be obtained in many generations, it becomes a partnership not only between those who are living, but between those who are living, those who are dead, and those who are to be born.”

Jefferson and the debt paradigm
The debt paradigm

• The real contribution of Jefferson to the Intergenerational justice Principle (IJP) was the idea that each generation should be free to refresh its dwelling on Earth, without the burden of the past generations, under the condition of cleaning the world scene, allowing a new start for the next generation.
Financial Public Debt Paradigm…

“Then 19 years is the term beyond which neither the representatives of a nation, nor even the whole nation itself assembled, can validly extend a debt”, Thomas Jefferson

Note: What can the connection with the Eurozone Rules?
Madison raises an objection…

But a case less liable to be controverted may perhaps be stated. Debts may be incurred with a direct view to the interest of the unborn as well as of the living: Such are debts for repelling a Conquest, the evils of which descend through many generations.
“Debts may even be incurred principally for the benefit of posterity: Such perhaps is the debt incurred by the U. States. In these instances the debts might not be dischargeable within the term of 19 years.”

Letter from Madison to Jefferson, Feb. 4, 1790.

Remark: What should we think about debts regarding climate change?
...and constitutional law

“Every constitution then & every law, naturally expires at the end of 19 years. If it be enforced longer, it is an act of force, & not of right.”

Thomas Jefferson
Jefferson’s I.J. Principle

"The earth belongs in *usufruct* to the living“. Against the burden of the past.

- There is no absolute autonomy of each generation: the 19 years limit for public debt.
- There is the need to maintain the *earth’s integrity*, as condition for the usufruct of coming generations.
The case of Climate Change within the debt paradigm
**Figure 2.1. The greenhouse effect (reference 2)**

Solar radiation passes through the clear atmosphere.

Some solar radiation is reflected by the Earth and the atmosphere.

Some of the infrared radiation passes through the atmosphere, and some is absorbed and re-emitted in all directions by greenhouse gas molecules. The effect of this is to warm the Earth’s surface and lower the atmosphere.

Most radiation is absorbed by the Earth’s surface and warms it.

Infrared radiation is emitted from the Earth’s surface.
Figure 1.1. Variations in Earth's average surface temperature, over the past 20,000 years

Average temperature over past 10,000 years = 15°C

- End of last ice age
- Younger Dryas
- Holocene Optimum
- Mesopotamia flourishes
- Vikings in Greenland
- Medieval Warm
- Little ice age in Europe (15th–18th centuries)
- 1940
- 21st century: very rapid rise

IPCC (2001) forecast: +2–3 °C, with band of uncertainty
Figure 2.2. Atmospheric concentration of CO$_2$ from year 1000 to year 2000

Source: Watson et al, 2001.³ (The data are from polar ice cores and from direct atmospheric measurements over the past few decades. Projections of CO$_2$ concentrations for the period 2000 to 2100 are based on the IPCC’s six illustrative SRES scenarios and IS92a.)
Historical GEE emissions

- From 1850 to 2000 the global emissions attained 1 200 Gt CO2e (from 270 ppmv CO2 to >413 ppmvCO2 today).
- 70% from that emissions were made after 1950.
- 70% from that global emissions came from developed countries.

- 09 03 2018: 409. 94 ppmvCO2 (Mauna Loa Observatory).
- 09 03 2019: 413. 55 ppmvCO2 (Mauna Loa Observatory).
Playing cards with Hell

• Beyond 450-CO2eq.: the risk of going beyond an average global increase of 2.ºC will be extremely high.

450 ppm=78% >2ºC; 18%>3ºC
550ppm=69% >3ºC; 24%>4ºC
650ppm=58%>4ºC; 24%>5ºC
750ppm=82%>4ºC; 47%>5ºC; 22%>6ºC
The «burden» of factual truth

• The Earth system works according to natural laws we may know, but not persuade or “buy” to act according to our wishes and desires.

• We need to design our institutional arrangements and our funding mechanisms taking into consideration the “despotic character” of factual truth.
Per capita CO2 emissions (2005)

- USA: 19.9 tons (n.º 6).
- China: 4.3 t. (n.º 70).
- EU (27): 8.4 t. (n.º 37).
- Russia: 11 t. (n.º 19).
- Austria: 9.7 t. (n.º 28).
- Portugal: 6.4 t. (n.º 62).
- Brazil: 1.9 t. (n.º 104).
- Mozambique: 0.1 t. (n.º 174).

Source: World Resources Institute
## Power shift (2013)

<table>
<thead>
<tr>
<th>Top 10 emitters 2013</th>
<th>% of global total</th>
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</thead>
<tbody>
<tr>
<td>China</td>
<td>29 (7,2t pc)</td>
</tr>
<tr>
<td>USA</td>
<td>15</td>
</tr>
<tr>
<td>EU</td>
<td>10 (6,8t pc)</td>
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<tr>
<td>India</td>
<td>7.1</td>
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<td>Russian Federation</td>
<td>5.3</td>
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<td>Japan</td>
<td>3.7</td>
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<tr>
<td>Germany</td>
<td>2.2</td>
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<tr>
<td>Republic of Korea</td>
<td>1.8</td>
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<tr>
<td>Iran</td>
<td>1.8</td>
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<td>Saudi Arabia</td>
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Meaning of the Principle of common but differentiated responsibilities (PCDR).

- Countries that historically first took advantage from global commons had to acknowledge that there isn’t a fair relationship with newcomers (typically the North-South divide).
- This Principle is of universal reach (see the burden sharing inside the EU).
- Implicit in the principle is the concept of finite “ecological space”: ontological limits.
The meaning of Climate Change…

Public debt or constitutional paralysis are both ways of burdening the coming generations with today options. However, debts can be refused and constitutional revolutions made. That’s not the case of the unbearable burden of climate change.
...as infinite and endless public debt

Climate Change is a truly «ontological debt» that must be paid until the last cent, not only by specially and above all by those who made it, but by coming generations...
Conclusions
Risking unchartered “Hothouse Earth...
(PNAS, 8.2018)
IJP: prior and beyond justice

• Climate Change, under the perspective of the Intergenerational justice Principle, (IJP) goes both prior and beyond the debt paradigm.
Prior to the roots of justice

Prior the debt paradigm, because its ontological nature takes into consideration the basic pre-conditions of justice, namely the existence of a Planet able to accommodate human beings.
Beyond good and evil…

Beyond the debt paradigm, because the implications of Climate Change is unable to be framed in a Cost Benefit Analysis, given the risk of collapse:

“Perhaps in the end the climate-change economist can help most by not presenting a cost-benefit estimate for what is inherently a fat-tailed situation with potentially unlimited downside exposure…”, Martin L. Weitzman, 2009; 18.
From meta-justice to workable justice

• The Intergenerational justice Principle, seen in the framework of the ontological debt prospect, may be understood as a meta-justice principle, more as a guide to practical reason, than a tool to concrete action.

• The key for workable justice will be the acting combination between the (IJP) and the Principle of common but differentiated responsibilities (PCDR).

• The hierarchy gives priority to IJP over PCDR).
To sum up, both in time and space

“Live
Simply
So that
Others
May
Simply
Live”

M. Gandhi