

The contradictions and dangers of Bruno Latour's conception of climate science

PHILIPPE STAMENKOVIC

ABSTRACT

This article debunks Bruno Latour's seemingly pro-scientific and well-intentioned (in particular, environment-friendly) posture. I briefly summarize Latour's constructivist, relativist, hybridist, and mystic philosophy, insisting on his radicalization in his last two books (*Face à Gaïa* and *Où atterrir?*). I show that Latour's conception is akin to "pseudo-profound bullshit" (Frankfurt, Pennycook et al.), inasmuch as he tries to hide his mysticism behind the invocation of scientific facts. I then concentrate on Latour's politicization of climate science, showing that it is: self-contradictory from an epistemological point of view, since it presupposes scientifically established facts (such as anthropogenic climate change) while at the same time undermining their objectivity; counterproductive, and even dangerous, from the political point of view, since it recommends a full politicization of climate science and ignores its harmful effects. I conclude by advocating a distinction between science and politics, and by showing that Latour's philosophy fosters our current post-truth predicament.

WORK TYPE

Article

ARTICLE HISTORY

Received:

31-May-2019

Accepted:

31-October-2019

Published Online:

24-November-2019

ARTICLE LANGUAGE

English

KEYWORDS

Bruno Latour

Climate science

Politicization of science

Pseudo-profound

Bullshit

© Studia Humanitatis – Universidad de Salamanca 2020

P. Stamenkovic (✉)
Aix Marseille University, France
e-mail: p.stamenkovic@free.fr

Disputatio. Philosophical Research Bulletin
Vol. 9, No. 13, Jun. 2020, pp. 00-00
ISSN: 2254-0601 | www.disputatio.eu

© The author(s) 2020. This work, published by Disputatio [www.disputatio.eu], is an Open Access article distributed under the terms of the *Creative Commons License* [BY-NC-ND]. The copy, distribution and public communication of this work will be according to the copyright notice (<https://disputatio.eu/info/copyright/>). For inquiries and permissions, please email: (✉) boletin@disputatio.eu.

The contradictions and dangers of Bruno Latour's conception of climate science

PHILIPPE STAMENKOVIC

§1. Introduction

THE PURPOSE OF THIS ARTICLE IS NOT to analyze the well-known difficulties stemming from the main tenets (especially the social constructivism and the relativism) of the Science Studies literature (for efficient summaries, see Raynaud [2003] 2018 or Barberousse 2011). Neither is it to provide a general critique of Bruno Latour's huge production in this field (see the excellent critique of Malm (2018), with a focus on climate change). Instead, my goal is to focus more specifically on Latour's last two books, *Face à Gaïa* (Latour 2015) and *Où atterrir? Comment s'orienter en politique* (Latour 2017).¹ There are several reasons for this.

First, although Latour has always been an extreme social constructivist and relativist undermining scientific objectivity, he recently radicalized his position to a kind of New Age mysticism,² while at the same time presenting all the appearances of a pro-scientific (apparently acknowledging the reality of climate change), well-intentioned (in particular, environment-friendly) author, as it were (Stamenkovic forthcoming).

This seemingly scientific posture is worrisome because Latour not only pretends to explain important phenomena such as climate change, the explosion of economic inequalities, or the rise of populism to name a few, but also to make

¹ Unless otherwise specified, references are to the French editions, translations are my own and emphasis in quotations is original. For *Face à Gaïa*, references are to the epub electronic editions, with mention of the chapter number and closest footnote numbers (indicated with the abbreviation "n."; if the indication is "note" then the quote refers to the footnote itself). I will also occasionally make references to the draft of Latour's (2013) original Gifford lectures, which constitutes the material of *Face à Gaïa*.

² I use this term in a loose sense, to indicate a philosophy which is obscure with respect to form, and more based on feelings and emotions than on rational knowledge with respect to content. The term also indicates a religious and mythical dimension, as we shall see. "New Age" refers to Latour's concept of Gaia (see below).

political recommendations to scientists as well as to the general public for how to deal with them. Although it is difficult to make sense of what Latour writes, the reader of his books will vaguely retain that one should mix up all categories (nature and society, science and politics, humans and non-humans, etc.), and in particular that science — and especially climate science — should be fully politicized (we will see what this means exactly).

Finally, an aggravating circumstance is that Latour enjoys a huge popularity in France and internationally, not only in academia³ but also in the general media⁴ and even, in France, in the decision-making public sphere.⁵ His last two books, especially, seem to have been written for the general public rather than for an academic audience. Meanwhile, Latour writes, participates in, or organizes theater plays⁶ and gives numerous public conferences (see e.g. Larrègue 2018).

All these elements — the subterfuge of hiding his mysticism behind a seemingly scientific posture, the pretense to theoretical explanations and political recommendations, and his huge popularity — make it all the more necessary to analyze Latour's recent work, and his pretension to write social science or philosophy.⁷

In this article I will first briefly summarize Latour's conception, insisting on his two last books. I will then show that Latour's position is:

³ See e.g. the laudatory reviews of Coccia (2019), De Meyer (2016), Dessendier and Dieuaide (2018) or Hamman (2016). Latour himself looks like the chief of a religious sect with respect to some of his younger colleagues (see Lamy 2014).

⁴ In this respect, the indulgence of several renown newspapers is worrisome. See e.g. Kofman 2018, Slettholm 2018, O'Brien 2019. Latour is also regularly interviewed in the French media (see his personal website <http://www.bruno-latour.fr>), and publishes opinion columns in the French newspaper *Le Monde*. For a striking illustration of Latour's mystical turn, see his latest interview by Jean Birnbaum in the latter newspaper, "Bruno Latour: 'L'apocalypse, c'est enthousiasmant'", dated May 31st 2019.

⁵ See e.g. Latour's public hearing at the French Parliament (*Assemblée nationale*) on the 5th of February 2015 (<http://www.assemblee-nationale.fr/14/cr-gtinstit/14-15/c1415005.asp>, consulted on 23/05/2019).

⁶ Such as "Cosmocolosse", "Gaïa Global Circus" or "Théâtre des simulations". This artistic posture may seem at odds with his proclaimed sociologist status, but is indeed compatible with the content of his work, as we shall see.

⁷ Latour (2010) explicitly claims to do philosophy, as well as "empirical" work. One might argue that philosophy is not necessary a science (in Hansson's (2003) extended sense), for example if one considers continental philosophy. However, since Latour claims to use the knowledge available from other disciplines (namely, climate science), to explain the phenomena he describes, and to tell us what to do accordingly, he places himself *de facto* in a scientific posture (in Hansson's large sense).

- self-contradictory from an epistemological point of view, since it presupposes scientifically established facts such as anthropogenic climate change while at the same time undermining their objectivity;
- counterproductive, and even dangerous, from the political point of view, especially since it recommends a further politicization of (climate) science.

I will thus conclude that Latour's work should not be considered scientific and that his political recommendations should certainly not be taken seriously.

§2. A brief presentation of Latour's philosophy

Latour's writings have never been easy to understand, but it is particularly difficult to make sense of his last two books. On the form Latour's prose is often vague, contradictory or simply unintelligible. Precision, rigor and clarity have never been Latour's strong point since his 1979 *Laboratory Life*, but the tendency seems to have progressively worsened, to reach an extreme point in Latour (2015) and (2017). On the content, Latour radicalized his original constructivism and relativism to a position which can now be best described as mysticism.

I cannot go here into the details of Latour's conception. I will only summarize its essential features, and mainly take examples from Latour (2015) to illustrate my claims (for a detailed analysis of Latour 2017, see Stamenkovic forthcoming).⁸ I will limit myself to Latour's general philosophical conception and will not analyze the way he specifically deals with climate science, which is the object of the second section.

§2.1. Latour's obscure rhetoric

It is important to analyze Latour's style as such, for matters of:

- Form: his style is problematic in itself because it makes the comprehension of his writings very difficult.
- Content: very often, the style stands in for the argumentation, which is reduced to stylistic effects.

⁸ In order not to repeat myself, I refer the reader to Stamenkovic forthcoming for all the claims hereafter referring to Latour (2017) which are unsubstantiated in the present article.

In Latour (2015), the style alternates between literary passages and a more familiar language. Latour (2017) is decidedly more “down to earth”, to use the title of the English translation, apparently to suit a larger public. Whereas Latour (2015) tries to develop ideas, Latour (2017) mentions them more briefly, often without justification. In both works, the argumentation is often desultory.⁹ Once the book closed, the reader retains only vague impressions from what he has just read.¹⁰

In both works, features of Latour’s argumentation include:¹¹

- A recurrent recourse to play on words: e.g. to justify his conflation of the descriptive and the normative — taken to characterize nature as well: “What is *just here* is, at bottom, always also what is *just*. Or, to say it in yet another way, to *order* (in the sense of ordering the world) is to *order* (in the sense of giving orders)” (2015, ch. 1, n. 64-65).
- Vague or meaningless expressions: e.g. “If ecology drives [people] mad, it is because it is indeed an alteration *of the alteration* of the relationships to the world. In this sense, it is both a new folly, and a new way to fight against previous follies!” (2015, 1st conf., n. 13-14).
- Distortion, or evacuation, of the meaning of words or expressions: e.g. “to respect the facts” (2015, 1st conf., n. 54-55) is used purely rhetorically, and has nothing to do with facts — since in Latour’s argumentation the expression is applied to climate deniers.¹²

Sometimes Latour’s writings even reverse reality. For example, Latour (2015, 2nd conf., n. 65-66) pretends that the “idea[s] of matter” and “nature” peculiar to modern science are charged with “theology” and “politics”, and that the “scientific vision of the world” has taken away the “historicity of the world, for

⁹ Latour (2017) is particularly striking in this respect, with sentences following each other without any logical link, or even contradicting one another.

¹⁰ As we shall see, this is one of Latour’s strengths, because these vague impressions contain widely acknowledged facts (such as anthropogenic climate change, or the rise of economic inequalities).

¹¹ Here I take examples only from Latour (2015). For similar examples in Latour (2017), and for a more complete list, see Stamenkovic forthcoming.

¹² In this article I will talk indifferently of climate deniers (or negationists) to designate deniers of climate change (as a scientifically established fact), or of climate science (as the science which establishes this fact).

science as well as for politics and religion”.¹³ In the meantime, Latour claims that he is the one who manages to finally make nature profane. Such statements will appear particularly ironic to the reader familiar with Latour’s highly theological and political conception of nature (see the following sections), and the negation of its historicity which it implies (see Malm 2018).

Similarly, Latour (2015, 1st conf., n. 62-65) condemns the “confusion” of the supposedly received conception of nature which — according to him — entails both a descriptive and a normative dimension; or its lack of “precision” (2017, p. 94); or criticizes the “always ambiguous manner by which [scientists] treat states of affairs” (2015, 2nd conf., n. 48-49); etc. On the contrary, it is Latour’s conception which is confusing and vague, by forbidding any categorization (see below) or discarding by principle any attempt at explanation.¹⁴

§2.2. The progressive radicalization of Latour’s philosophy

One can describe Latour’s philosophy as a progressive radicalization, from the constructivism — already very strong — of the early Latour (1979/1986, 1984), to his “hybridism” (Malm 2018) and unbridled agency distribution (Latour 1987, 1991), and finally his mysticism, proselytism and even conspiracism appearing in his latest work (Latour 2015, 2017).

§2.2.1. Constructivism and relativism

For social constructivism, reality is basically a social construct: there is no reality independent of humans thinking it. As Kidner (2000) remarks, constructivism¹⁵ is a confusion of epistemological claims (about knowledge) and ontological claims (about reality). Latour is famous for his extreme, hybrid — rather than social — constructivism, according to which, in a nutshell, “all entities [...] have to be *made*, constructed, elaborated, fabricated” (2013, p. 15). This applies of course to scientific entities, which are constructed by “networks” — rather than scientists alone — in which scientists “ally” with innumerable other “actors” or “actants” (objects, animals, inanimate matter, institutions, etc.), and do not exist independently of these networks (see e.g. Latour 1984). This constructivism is

¹³ See in particular the 5th conf., as well as the 8th conf. (e.g. n. 50-51).

¹⁴ Latour 1988 states that it must not be a goal of critical inquiry.

¹⁵ Kidner talks of “constructionism” rather than “constructivism”.

present as soon as Latour and Woolgar 1979/1986 (e.g. p. 180-183)¹⁶, and permeates Latour's entire work until today. It is of course present in Latour (2015), where we learn for instance (4th conf., n. 13-14), that the chemical composition of the atmosphere is "*only*" (emphasis in original) a "historical episode fabricated by humans", in the same way as "scientific facts, relations of power, inequalities between sex".

A well known consequence of constructivism is relativism. As Kidner (2000, p. 2) explains, because different social points of view construct different natures, with no objective criterion enabling us to chose between them, constructivism implies relativism: no interpretation of nature is "better" (i.e. more objective) than any other. Although Latour repeatedly denies being relativist, his writings speak for themselves. For example, in Latour 1984, one can read sentences such as:

"There are only trials of strength, of weakness" (p. 158).

"There is no such thing as superior knowledge and inferior knowledge" (p. 232).

"[...] we have to abandon many intermediary beliefs: belief in the existence of the modern world, in the existence of logic, in the power of reason, even in belief itself and in its distinction from knowledge" (p. 150).

"Nothing is by itself either logical or illogical. [...] No set of sentences is by itself either consistent or inconsistent [...]; all that we need to know is who tests it with which allies and for how long" (p. 179).

As Malm (2018, ch. 4, n. 9-10) rightfully puts it: "This epistemological nihilism boils down to a rather vulgar type of Machiavellianism or Nietzscheanism: what is right is solely a question of might". Although less radical, Latour (2015, 5th conf.) still presents a multitude of "truths", the "truth of nature" being one the same level as that of religion or politics (7th conf., n. 8-9).

Another consequence of constructivism is that it denies nature's own structure and consequently any preserved, essentially human-free, area. Instead, nature is viewed as a mere collection of "raw materials" (Kidner, 2000, p. 6). This is why, according to Kidner (2000), social constructivism favours industrialism, which conceives these raw materials as simply available for its own ends. Latour's constructivism is very much subject to this criticism, as it progressively evolves

¹⁶ Latour's most illustrative statement in this respect may be the following: "Before Koch, the bacillus [of tuberculosis] has no real existence" (1988, p. 84). Latour does not explain what Ramses II "really" died from.

towards a complete hybridism mixing up all sorts of — human, animal, inanimate, etc. — agents.

§2.2.2. Hybridism

Latour's hybridism originates in his generalized symmetry principle (Latour 1987), which is a methodological requirement demanding that no distinction be made between nature and society, humans and non-humans, politics and science, actors and sociologists, etc. In *Face à Gaïa*, Latour's hybridism is particularly targeted at the nature/culture distinction (see e.g. 1st conf., n. 14-29), but other material, conceptual or linguistic distinctions are also dissolved: human and non-human (2nd conf., n. 54-55); descriptive and prescriptive (the latter taken to be also characteristic of nature, e.g. 1st conf., n. 62-63); cause and consequence (2nd conf.); constative and performative statements (2nd conf., n. 15); figurative and literal (whose confusion is a "law of history", 4th conf., note 3); etc. Basically, Latour loathes any factual or conceptual distinction whatsoever.¹⁷ The goal here seems to be as subversive as possible by discarding all categories of thought (see in particular Latour 2015, 3rd conf.), thus making any analysis impossible.

Hybridism permeates Latour 2015. For instance, with respect to the descriptive/prescriptive distinction, Latour (2015, 1st conf., n. 29-30) talks of "the moral charge of nature", claims that "common sense has merged *de facto* and *de jure* statements", and that the "description of facts" is inseparable from "moral attribution" (ibid., n. 42). Facts (e.g. about climate change), according to Latour, are always prescriptive (of a morality, a policy; ibid., n. 37-43, 63-64).

Of course, such a total rejection of any factual or conceptual distinction is untenable for someone who nonetheless pretends to make reference to scientifically established facts (such as the anthropic origin of climate change), and to quote relevant literature — which is the case of Latour in his recent work (2015, 2017). Thus he is forced to occasionally make use of distinctions which directly contradict his philosophical framework. For example, he recognizes "the human origin of climatic mutations" (2015, 1st conf., n. 36), clearly distinguishes between humans and non-humans (2015, 2nd conf., n. 18-19, or 48-49), or identifies a specifically "natural actor" such as a river (ibid., n. 23-24).

¹⁷ The only categories that Latour (2015; 2017) seems eager to keep are those of "friend" and "enemy", which he applies not only to science (strangely reduced to a kind of warlike enterprise), but also to politics and in fact to all form of social life.

§2.2.3. Agency

Another essential feature of Latour's philosophy is his ascription of agency to basically everything that exists, whether materially — animals, inanimate matter, the climate, the Earth, etc. — or not — Latour's concept of "Gaia", "divinities". In Latour's conception rivers or hormones can have "goals", "intentions" or a "will" (2015, 2nd conf., n. 25-31). In the same way, Latour (e.g. 2015, 8th conf., n. 54-55) explicitly considers animals, and "inanimate agents", and in fact everything one can possibly think of, as political (agents). I refer the reader to Malm (2018, ch. 3) for a detailed analysis of this aspect of Latour's conception.

§2.2.4. Mysticism

This tendency to attribute agency to everything literally leads to animism, and, together with Latour's religiosity¹⁸, to mysticism¹⁹. Indeed, Latour himself talks of "animated" entities — (objects, animals, anything material, including of course the Earth itself — or rather "Gaia" —, but also "divinities" in Latour (2017)), not only in the sense that they have "goals" or "intentions", but also that they are "gifted with a soul" (Latour 2015, 2nd conf., n. 19-20). It is important to note that such formulas do not just represent manners of speaking for Latour, but that he insists, at several places, that they must be taken literally (*ibid.*, e.g. n. 59-60, or n. 69-70). Similarly, Latour (2017, p. 111) directly addresses "bacterias of the soil", "forests" and "animals" with the following questions: "What do you want? What are you capable of? With whom are you ready to cohabit? Who can threaten you?", and then asks these "animate" (*animés*), which "each have their own path [*parcours*] and interest", "what [they] care about", "against whom [they] will have to fight", etc. (*ibid.*, p. 121).

The analysis of Latour's theological and mystical conception of "Gaia" exceeds the scope of this article. Let us just recall that this concept, originally designating the Greek mythological goddess of the Earth, was revived by James Lovelock in the 1960s and later with Lynn Margulis in the 1970s, in his "Gaia hypothesis", according to which living organisms affect the Earth's chemical and geological conditions, and in so doing help maintain the habitability of the

¹⁸ One should recall the increasing religiosity of Latour's writings since the 2000s, starting with Latour (2002); (on the metaphysical and theological dimension of Latourian sociology, see Heinich (2007)).

¹⁹ Latour himself occasionally seems to acknowledge his "myth[ical]", "prescientific", "non modern" thought (e.g. 2015, 2nd conf., n. 47), or, even more explicitly, his "animism" (*ibid.*, n. 62, where it is the "disanimation" which is criticized). In the 3rd conf. (n. 35-36), we learn that "myth and science, we know that well, speak languages which are different only in appearance".

planet. For our purpose here, suffice it to say that Latour distorts this self-regulating hypothesis and goes back to a mythical understanding of Gaia, which he takes to be a mysterious “power recognized as intentional and directly geopolitical”, a “power which dominates the chiefs of states”, a “new authority” in front of which “the obscuring elites [...] try to hide their misdeeds” (2017, p. 107-108). For the rest, let me refer to Stamenkovic (forthcoming), where I show how Latour’s conception illustrates Ernst Cassirer’s (1925) “mythical thought”. Another way to interpret Latour’s Gaia is to take it as an illustration of the “social psychosis” and the “loss of reality” by which Kidner (2000, p. 13) characterizes social constructivism.

An interesting research avenue with respect to Latour’s mysticism would be to study his treatment of climate denialism, which he attributes to the religious, and even post-apocalyptic, nature of modernity and modern science (2015, 6th conf., n. 51 sqq.).

§2.3. Latour’s seemingly good intentions

§2.3.1. “Bullshit”

At this stage, it should be clear that Latour’s writings qualify for Frankfurt’s (2005) concept of “bullshit”, whose “essence” is a “lack of connection to a concern with truth”, an “indifference to how things really are” (p. 34-35). This is indeed the case of Latour, who displays a nihilistic relativism and discards the notion of truth altogether, as we have seen. As Frankfurt (2005) puts it:

“Someone who ceases to believe in the possibility of identifying certain statements as true and others as false can have only two alternatives. The first is to desist both from efforts to tell the truth and from efforts to deceive. This would mean refraining from making any assertion whatever about the facts. The second alternative is to continue making assertions that purport to describe the way things are, but that cannot be anything except bullshit” (p. 61).

As his huge bibliography testifies, Latour has clearly not chosen the first alternative. His constructivism also contributes to his bullshit:

“The contemporary proliferation of bullshit also has [...] sources in various forms of skepticism which deny that we can have any reliable access to an objective reality, and which therefore reject the possibility of knowing how things truly are. These “anti-realist” doctrines undermine confidence in the value of disinterested efforts to determine what is true and what is false, and even in the intelligibility of the notion of objective inquiry” (Frank, 2005, p. 65).

In a way, Latour also deserves the title of climate “negationist” — a term he uses to berate what first seems to be climate deniers but which in fact designates those who do not share his conception.²⁰ Like them he “obscures” or “obfuscates” (*ibid.*) our current climatic predicament — maybe even more.²¹ Indeed, according to Frankfurt (2005, p.61), by its total disregard for the notion of truth, “bullshit is a greater enemy of the truth than lies are”. If we take lying to be one component among many of climate denialism²², then Latour’s bullshit may be seen as a greater threat than climate denialism.

A more charitable interpretation of Latour’s writings would be that he simply has no idea of the sciences he is talking about, and of their methods. For example, he assimilates the principle of causality to “a creationist story” credo (2015, 2nd conf., n. 64). As Frankfurt (2005, p. 63) remarks, “bullshit is unavoidable whenever circumstances require someone to talk without knowing what he is talking about”. “Circumstances” are not necessarily external, but also include people’s “own propensities” (*ibid.*), which seems to be the case of Latour.

§2.3.2. “Pseudo-profound bullshit”

An aggravating circumstance to Latour’s bullshit is that he nonetheless tries to appear, from time to time, realistic, by acknowledging certain fundamental distinctions or scientific facts, as we have briefly seen. Similarly, Latour mentions many authors who have produced serious work on climate change (e.g. Hamilton 2013, Aykut and Dahan 2015). As Frankfurt writes (2005, p. 47-48), “although it is produced without concern with the truth, [bullshit] need not be false. The bullshitter is faking things. But this does not mean that he necessarily gets them wrong”. Indeed, Latour seems to recognize anthropogenic climate change. But it does not seem to happen by chance, while just ignoring the relevant facts or literature, but rather by strategy, in order to appear more credible. Thus, Latour’s conception cannot just be called bullshit *tout court*.

Indeed, it is not that Latour just doesn’t care about the facts or the literature he mentions, while not modifying his philosophical conception accordingly. Rather, he seems to invoke these elements to appear more credible, and to

²⁰ Indeed, Latour has in mind “those who, for whatever reason, interrupt, erase, neglect, diminish, weaken, deny, obscure, disadvantage or disconnect these loops”, which are the “multiple, controversial, entangled loops” through which Gaia “feels and detects” our action (2015, 4th conf., n. 73-74).

²¹ See also the §3.

²² This complex phenomenon incorporates of course many other dimensions (resistance to facts, ideology, etc.).

advance his own philosophical agenda. He uses and diverts the work of the authors he mentions to support his own position.²³ In parallel, Latour carefully denies that his conception is relativistic or religious, apparently in an attempt to appear rational or progressive to his reader. All these elements increase the credibility of Latour's bullshit and falsely convey an impression of verisimilitude, of truth. Thus Latour's bullshit should more accurately be labeled "pseudo-profound bullshit", following Pennycook et al. (2015). The latter distinguishes itself from mere bullshit — which is characterized by a "lack of direct concern for truth" — inasmuch as it "betrays a concern for verisimilitude or truthiness" (ibid., p. 550).²⁴ Latour's pseudo-profound bullshit makes him all the more dangerous, because it enables him to make his conception look more convincing.

In the same way, Latour's subtle conception eschews some critiques which have been made against the negative consequences of social constructivism with respect to the preservation of wild nature and the environment (see e.g. Kidner 2000, Crist 2004, although many of their critiques do apply to Latour). While Latour's constructivism shares many of the weaknesses of traditional constructivism — e.g. the purely discursive meaning of concepts, ignoring their references in reality —, it also adds specifically Latourian elements. The most important is that Latour does not take an agnostic stance towards scientific claims — at least in the case of climate change —, contrary to the constructivists Crist (2008, p. 511) criticizes. Similarly, Latour (2017, note 62 p. 148) does not deny the bio-diversity crisis; he explicitly criticizes geo-engineering; berates climate denialists; etc. More cunningly, while Crist and Kidner characterize constructivism as an arrogant, anthropocentric conception, not listening to nature and to its inner order, Latour makes every effort not to appear arrogant but, on the contrary, close to the people. He pretends to listen to nature — even if it is in fact a hybridized avatar, Gaia — and criticizes modernity and unbridled industrialist progress (1991). Thus, in spite of many contradictions, Latour's

²³ This has to do with his proselytism (see below).

²⁴ The nuance between "bullshit" and "pseudo-profound bullshit" is tiny. Indeed, although Frankfurt claims that bullshit is "produced without concern with the truth", he also identifies it, unlike lying, as "a matter not of falsity but of fakery", "for the essence of bullshit is not that it is false but that it is *phony*" (Frankfurt, 2015, p. 47). But the notions of fakery or phoniness already "betray a concern for verisimilitude or truthiness" (Pennycook et al., 2015, p. 550).

books (especially Latour 2015) may leave a vaguely ecological, environment friendly impression.²⁵

§2.3.3. Good intentions?

In the same way, Latour's acknowledgment of climate change and our environmental crisis, or (in Latour 2017) his mention — rather than explanation — of globalization or growing economic inequalities, his compassionate — although abstruse — evocation of migrations, or his ode to the European Union, seem to be the only thing which the general media retain from him. It seems that Latour enjoys the public image of a maybe unconventional, but fundamentally well-intentioned intellectual, as it were. The elements we have reviewed so far — in particular, Latour's pseudo-profound bullshit — have already undermined that image, but Latour's last two books provide further evidence against this case.

A first stance Latour displays in the face of all the predicaments he mentions is fundamentally passive, so to speak. Granted, Latour (2015) recognizes not only an “ecological crisis”, but also “a profound mutation of our relationship to the world” (1st conf., n. 1-2). He criticizes climate denialism as well as “climate quietism”, which basically consists in ignoring our climate predicament. But he does not call for a change of the current policies or institutions, nor for political action.²⁶ Rather, he adopts a passive, contemplative approach, in line with his incantatory appeal to the virtues of description (a procedure supposed to solve a wide range of problems since Latour and Woolgar 1979).²⁷ Thus, Latour (2015) recommends to *adapt* to climate change, to accept it and to “learn to survive” (1st conf., n. 12-13), while Latour (2017) merely calls for a description of all possible actors and “parties” — humans, bacteria, “marching forests”, etc. — interested in the “climatic mutation” — what we should do with this description is not explained. Similarly, while Latour dramatically invokes the “ecological mutation”, he does not seem to really grasp it, as the solution he proposes is his usual plays on words (see e.g. 2015, 1st conf., n. 13-14). Rather than being transgressive or even subversive, Latour's

²⁵ Pennycook et al. (2015, p. 550) “argue that an important adjutant of pseudo-profound bullshit is vagueness”, “combined with a generally charitable attitude toward ambiguity”. Indeed, vagueness and ambiguity may well be a way for Latour to escape his contradictions.

²⁶ See also Malm (2018, ch. 4, n. 109-112).

²⁷ A particularly strong formulation of this ideal of description can be found in the last sections of Latour (2017). Note that there is a contradiction between Latour's claim to explanation through description (however indirectly it is formulated) and his explicit rejection of this goal for theory (see especially Latour 1988, but also 2004).

conception seems to have become his stock-in-trade (as the many narcissistic passages of Latour 2015 and 2017 illustrate).

But there is also an opposite, aggressive side to Latour's last books, which testifies of his recent radicalization. First, Latour displays a strong proselytism, as we have begun to see²⁸ with his division of the world between “friends” and “enemies” — “if not criminals” — and his recurrent calls to go to “war” (2015, 1st conf., n. 54-55; 4th conf., n.73-74). Note that for Latour (2015, 7th conf., n. 61-end), “the expression ‘war and peace’ applied to Nature” is not “just a figure of speech”, but must be taken literally (see also 2017, p. 47). Note also that Latour does not only condemn climate deniers, but calls an enemy anyone who does not share his conception (2015, 4th conf., n. 73-74 and 7th conf., n. 61-end; 2017, p. 100). Finally, note that this warlike conception directly contradicts the previous, contemplative conception.

Second, Latour (2017) endorses an unabashed conspiracism, where “obscuring elites²⁹” deliberately fuel “disinformation” and hide the “climatic mutation” to the “good people”, who have been “coldly betrayed” (Latour 2017, p. 29-30, 33-35, 107; see Stamenkovic forthcoming). Latour (2015; 8th conf., n. 60-61) foreshadows this conspiracism,³⁰ by casting doubt, at the end of his book, on “the quality of the news I have reported by telling you what the Anthropocene would modify in our way of life — maybe is it only rumors...”

Finally, with conspiracism comes populism, the “good people” being the innocent victims of “elites” hiding climate change. Apparently Latour does not conceive that each one may, on her own behalf, actively sustain her denial of climate change (see Norgaard 2011).³¹ There are other unpleasant features in Latour (2017) — especially his obscure concepts of “soil” and “territory” —, which I cannot deal with here (see Stamenkovic forthcoming).

§3. Latour's conception of climate science

It is not until recently that Latour acknowledged the reality of (some) scientifically established facts — in particular, anthropogenic climate change — and the authority of science — climate science in particular. As we have briefly seen, the majority of his work has been dedicated to openly question the reality of scientific facts, which are constructed out of “networks” or “alliances” between

²⁸ See notes 17 and 20.

²⁹ Latour (2017) never precisely defines what he means by “elites”.

³⁰ Ironically, Latour also condemns the conspiracism of the climate deniers in the same book.

³¹ Although the responsibility of the public authorities should certainly not be ignored.

diverse “actors”, as well as the epistemic authority of science. At least this position was coherent. Somewhere in the 2000s it seems that Latour realized the epistemic untenability and political ravages of his conception, especially with respect to climate change (see in this respect Latour 2004).

But Latour did not change his general philosophical position accordingly³², as one might have expected: on the contrary, he even radicalized it, as we have seen. So, logically Latour should now be torn apart between his newly acquired status of whistle blower about climate change and apparent defender of climate science, and the rest of his philosophical conception, made up of elements such as constructivism, relativism, etc., that are incompatible with this new recognition.

Thus, Latour’s posture with respect to climate change and climate science remains unclear. Does he reconcile these two conflicting aspects of his philosophy, and if yes how? In particular, what is the factual basis on which his call for the politicization of our climate predicament is supposed to be grounded? We shall see that Latour does not solve the contradiction, and that his original conception remains unchanged, as if it were irrefutable³³. On the contrary, he pushes for a further politicization of (climate) science, which can have deleterious effects.

§3.1. Epistemologically contradictory

As Crist (2008, p. 510-11) writes, “taking science seriously means that instead of an exclusive meta-discursive focus on *how* scientific ‘claims’ are made [as constructivists do], there is receptivity to the validity of biological [or more generally scientific] findings; and instead of focusing on how scientific assessments are ‘contested’ — a favorite constructivist attack — what scientists are agreeing on is (also) attended to”. In other words, the occasional disagreements between scientists, on which constructivists, including Latour, so much insist, does not hinder the fact that biological science is the main source of information regarding the acknowledgment that we are in the midst of a major human-driven

³² This is also the case of Latour (2004), where Latour in fact does not make any *aggiornamento*, and does not regret his previous position.

³³ Latour (2015, 1st conf., note 62) replies, to his “friends scientists” who think he ceased to be a “relativist” since he now “believes” in “facts” concerning climate change, that he “never thought that ‘facts’ were objects of belief”, and that he “feels better armed to help the researchers to protect themselves from the negationists’ attacks”. He modestly concludes: “It is not I who have changed, but the ones who, being suddenly attacked, have understood how badly philosophy of science [*épistémologie*] was protecting them [sic]”.

bio-diversity crisis — and the same could of course be said about climate science with respect to climate change.

Latour has, as we have seen, a long constructivist career behind him, in which the study of scientific controversies indeed occupies a central place (see e.g. Latour 1984). In the case of climate change and climate science, however, it may seem that, exceptionally (to use his own word: 2015, 8th conf., note 6), he takes into account “what scientists are agreeing on”. But in fact, we shall see that the only thing which he takes into account is the scientific *consensus*, not “*what scientists are agreeing on*” (my emphasis) — namely, the reality of climate change. To use Crist’s word, there is no real “receptivity” from Latour to this fact.

§3.1.1. The recognition of climate change and climate science?

On the one hand, Latour seems to acknowledge the reality of climate change and the danger it represents. Thus, climate change “is no more, and since a long time, a question of knowledge” (2015, 1st conf., note 48). “The discussion *has indeed taken place*; the successive reports of the IPCC have summarized nearly twenty years of documentation, and the estimated certitude is near 98% — at least for the anthropic origin of global warming”³⁴ (ibid., n. 52-53). The “threat provoked by the anthropic origin of the ‘climatic disruption’ is probably the object of knowledge best documented and most objectively developed on which one can rely before taking action” (2015, 2nd conf., n. 9-10). The highest CO₂ concentration since 2,5 millions years is “a state of affairs [*état de fait*], the fruit of an assured observation obtained with great pain thanks to Keeling’s obstinacy” (ibid., n. 1-2). And there is “a dangerous CO₂ threshold” not to cross (ibid., n. 37). Similarly, Latour (2017, p. 36-37) deplures, — (in an incidentally conspiracist passage,) — the fact that climate denialists made “ordinary people [...] distrust a massive little fact [sic] — the climate mutation”,³⁵ and destroyed their “trust in the solidity of this fact”, which was necessary for “forcing the politicians to act before it is too late” (2017, 36-37).

³⁴ Still, in this quote we can see that Latour seems to acknowledge rather the scientific consensus (as a social construct) than the reality of global warming (as an objective fact), since he insists on the “discussion”, the “reports”, etc. He similarly talks many times of the “pseudo-controversy” of climate change (2015, e.g. 1st conf., n. 39-40), as if what really mattered was whether there was a controversy or on the contrary a consensus in the scientific community, and not whether this corresponds to an objective fact (indeed, in the referred passage, he immediately adds that the “pseudo-controversy” did not manage to “shake the consensus of the specialists”).

³⁵ This acknowledgement must be tempered by the abstruse definitions Latour (2015, intro., n. 6-7; 2017, p. 10) gives of climate.

On the other hand, Latour still clings to his old position. Thus he puts into question his previous acknowledgement that anthropogenic climate change was “the object of knowledge best documented and most objectively³⁶ developed” by challenging science’s “indisputable certitude, which it [science] is far from having” (2015, 2nd conf., n. 11-12). Just after mentioning the “pseudo-controversy mounted by the climate-skeptics”, and directly contradicting this statement, he adds that “unanimity is not their [the scholars’] strong point, and it is fortunate” (2015, 8th conf., n. 6). The appended footnote is even more explicit: “This is what troubles the climate-skeptics and which should rather reassure them: the case is so rare that it must be taken for the sign of an indeed exceptional situation”. Apparently, climate change enjoys an “exceptional” status with respect to all other scientific facts; this exception is not justified nor explained by Latour — maybe it has to do with the political unacceptability of denying climate change. Just after mentioning the record-breaking CO₂ concentration previously presented as a “state of affairs”, Latour explains that “[t]o say that a threshold [the 400 ppm CO₂ concentration] has been crossed and that we are carrying out an out-of-control experiment is to cross the supposedly inviolable gap between pure description and vigorous prescription — but we are not told what to do”³⁷ (2015, Eng. trans., 2nd conf., n. 3-4). Similarly, Latour considers that scientific statements made by climate scientists are charged with “emotions”, treated in an “always ambiguous manner” (2015, 2nd conf., n. 48-49). Finally, on the same page where Latour (2017, p. 37-38) recognizes the “massive little fact” that is the “mutation of climate”, and the “solidity of this fact”, he adds that it is not so much the facts than the “common practice” which matters.

Latour does not solve all these contradictions. Only in some rare passages does he try to reconcile the importance of facts with the importance of their social inscription — which of course should not be neglected to the sole consideration of the former —, instead of discarding the former to the sole consideration of the latter. For example, he aptly writes that “facts remain robust only when they are supported by a common culture, institutions which can be trusted, a public life decent enough, somehow reliable media” (2017, 35).³⁸

³⁶ But it is true that for Latour “objective” has a purely constructivist meaning (see subsection 3.1.3).

³⁷ This last proposition somehow contradicts the rest of the sentence.

³⁸ An ironic statement, given that Latour devoted most of his career to promote relativism, to undermine the authority of scientific institutions, and that this sentence occurs in a conspiracist passage.

§3.1.2. The conflation of the descriptive and the prescriptive

Latour's confused and contradictory position is particularly clear with respect to his hybridism between the descriptive and the prescriptive — already illustrated by the previous quote about the CO₂ threshold. In an evocation of climate denialism, Latour (2015, 1st conf., n. 35-49) attributes this conflation of the descriptive and the prescriptive to the climate deniers, who would have thereby defeated their ecologists and scientists opponents. "They [the deniers] saw that if the facts were recognized — the climatic mutations would have as main origin the emissions of CO₂ —, the politicians, pushed by the worry of the public, would immediately demand that measures be taken". This is why, according to Latour, they deny climate change, and support alternative facts, which will lead to alternative policies better suited to their interests.

But first, this conflation of the descriptive and the prescriptive does not correspond to reality: quite the contrary seems to have happened, actually. Although the facts about climate change are more firmly established and well advertised than ever, this doesn't seem to worry the general public (see e.g. Norgaard 2011), nor the politicians, who essentially continue business as usual, so to speak. In the same way, Latour (2017, p. 10, 107) naively believes that the COP21 in Paris triggered a realization, from the leading politicians participating to the summit, that climate change was happening and that policies therefore needed to be fundamentally altered. Again this is not what happened, neither in the US — obviously, with Trump —, nor in Europe — e.g. in France, where ecological concerns remain at the bottom of the political agenda.

Second, although according to Latour climate deniers rightfully consider that facts already bear a prescriptive charge, in the meantime they "astute[ly]" oppose to their opponents "ordinary epistemology" (2015, 1st conf., n. 44-45, 2nd conf., n. 3-4), according to which one should distinguish facts and prescriptions. But if they do so, what is the point of establishing alternative facts? Why doesn't Latour just say that facts and politics are two different things, and that the latter is, or should be, decided on the basis of the former? Similarly, according to Latour, scientists endorse, but without confessing it, the conception that facts and prescriptions are one and the same thing, but officially claim that facts are different from prescriptions. But then why does Latour say that they appear as "excited", "illuminated militants of a cause" (ibid., n. 48-49)?

§3.1.3. The incoherence of Latour's constructivism and hybridism

Climate change is of course a *physical* reality, not a social construct — although it has obvious social consequences. And like any physical reality, it exists *independently* of any humans observing, measuring or theorizing it. Granted, climate change is an ironic phenomenon for social constructivists, since it was originally provoked — and continues to be produced — by humans. But it has become a physical reality, independent of them. True, we take cognizance of it through measurements, instruments, models, theories and so on, in other words through human mediations, but still all these statements essentially correspond to a reality *out there*. There is an increased average concentration of CO₂, an increase of global mean temperature, etc. And even if we stopped measuring and representing them — even if we stopped, in fact, emitting CO₂ for a while — this reality would still be there, impose itself onto us.

But in the text of his Gifford Lectures, Latour explains, as we have seen, that “all entities [...] have to be *made*, constructed, elaborated, fabricated” (2013, p. 15). In the published text, he similarly explains that “on this Earth there is no other meaning to the adjective *objective*” than “robust enough to resist objections” (2015, 1st conf., n. 61-62). Objective is not about the object but the subject, for Latour. According to Latour (2015, 2nd conf., n. 13), resisting objections is “the only known way by which a proposition is transformed into a fact”.³⁹ And nature does *not* exist as such, separated from culture, “in the real world” (2015, 1st conf., n. 27-28).

Thus, Latour's previous affirmations that scientifically established facts matter appear purely rhetorical, since he completely ignores the contradiction that such claims entail with his constructivism and hybridism: he cannot help considering them as disguised prescriptive statements, or social constructs, and not as descriptive statements of states of affairs happening out there in nature. In this way, the facts are simply *mentioned* in his work (apparently for the mere sake of mentioning them, so as to appear more credible), in a purely rhetorical way, but are not integrated into it (see e.g. 2015, n. 41-42).

More fundamentally, if facts such as climate change are, in the end, social constructs, and do not exist independently of us, then why should we worry at all? Why should we not cross this “dangerous CO₂ threshold” if it does not correspond to a real danger? If nature does not exist “in the real world”, then the problem is only discursive, not real: we just have to change our definition of nature and the problem is solved! In the end, there is no need to worry and/or

³⁹ Strictly speaking, one should rather say a factual statement (designating a fact).

act: climate change does not *really* exist. As we can see, Latour's inconsistencies on the epistemological level also bear consequences on the political level.

§3.2. Politically counterproductive

Thus, a first politically harmful consequence of Latour's conception — more exactly, of its constructivist strand — is that it may hinder environmental action. As Hansson (2018, p. 66) remarks, social constructivism, by discrediting scientific knowledge with respect to environmental risks, has contributed to hinder the appropriate actions against these risks. He refers to Kidner (2000), who claims that constructionism, by anthropocentrically assimilating the natural realm to the human realm, is incompatible with ecology. Rather than complementing environmental theorizing with social and culture influences, constructionism is better viewed, according to Kidner, as “a cognitive counterpart to industrialism's physical assimilation of the natural world” (p. 1). For constructionism nature is discursive, and environmental problems are social constructs. Thus constructionism hinders environmental action. Similarly, for Crist (2004), not only does constructivism divert from the real, environmental or climatic, predicament by distracting attention from known scientific facts, but it also supports that predicament by discrediting ecological protests for example, and even “is boosted by (and in that sense cashes in on) the social destruction of nature” (p. 514).

At first sight, it would seem that Latour cannot be accused of diverting the attention from climate change, or discrediting ecological protests — since he even calls for a “war” against climate negationists. However, his extremely confusing conception might contribute to discourage people from taking interest in climate change. And his “war”, as we have seen, is rather directed against all those who do not share his mystical conception, rather than climate deniers *stricto sensu*. What is more, by insisting on peripheral or abnormal issues — such as the permanent disagreement between scientists, climate change being the “exception” confirming the rule —, Latour does not render a service to climate science, contrary to what he says (see also §3.2.3).

Another political consequence of Latour's conception has to do with his unbridled notion of agency. Malm (2018, ch. 3) has brilliantly shown how Latour's tendency to ascribe “agency” to anything evacuates any distinctively human responsibility in climate change — since agency can be ascribed to any material “actant” or actor, e.g. coal, oil, or the climate itself. This in fact leads to the denial of the specifically anthropogenic origin of climate change. Of course, climate change does not diminish our (human) agency, as Latour claims, but on

the contrary amplifies it, as Malm rightfully demonstrates. And any solution to our “warming condition” must necessarily take into account a distinctively human definition of agency.

One can thus say that Latour’s conception of agency in fact leads to the *depoliticization* of climate change, whose responsibility is infinitely diluted among all the material actants on the surface of the Earth — i.e. exactly the contrary of what he pretends to do. But there are other, and maybe worse, political consequences of Latour’s conception, concerning more specifically his recommendation of full politicization of climate science: it makes all political action based on facts impossible —, and it undermines the credibility of climate scientists and climate science. Let us first review the main features of this politicization, before analyzing and criticizing its consequences.

§3.2.1. Latour’s politicization of climate science

According to Latour (2015, Eng. trans., 1st conf., n. 58-59), climate scientists should “avow that they do have a politics”:

“When climate skeptics denigrate the science of climatologists, whom they accuse of behaving as a lobby, they too are assembled as a group, for which they have defined admissions tests and drawn boundaries, distributing the components of the world in a different way — what one can expect of politics and how science is supposed to function⁴⁰ [...]. Why wouldn't the climatologists do the same thing? There is no reason for them to keep claiming that they are not in the game, as if they were speaking from nowhere and behaving as if they didn't belong to any earthbound population. One would be tempted to offer them some advice: “But finally, instead of believing that you have to make your science meet the impossibly inflated demands of an epistemology that requires you to be disembodied and located nowhere, just say where you are situated” (ibid., n. 59-61).

After claiming that scientists should be “proud of having invented this extraordinary equipment that allows [them] to give voice to mute things as if they were in a position to speak”, Latour continues, addressing the climate scientists:

“If your adversaries [the climate deniers] tell you that you are engaged in politics by taking yourselves as representatives of numerous neglected voices, for heaven's sake answer ‘Yes, of course!’ If politics consists in representing the voices of the oppressed and the unknown, then we would all be in a much better situation if, instead of pretending that the others are the ones

⁴⁰ As Malm (2018, ch. 4, n. 26-27) explains, this is a terrible defense: basically what Latour says is that climate deniers are no better than scientists, since they too try to “assemble allies”. The only thing that matters here is the power of the assembled network, not whether one is right or not.

engaged in politics and that you are engaged ‘only in science,’ you recognized that you were also in fact trying to assemble another political body [...]. If it is entirely correct that you are not speaking in the name of an institution limited by the borders of nation-states and that the basis for your authority rests on a very strange system of election and proofs, this is precisely what makes your political power to represent so many new agents so important. That power of representation will be of capital importance in the coming conflicts over the form of the world and the new geopolitics”.

In this passage everything is not to blame: in itself, the appeal to be engaged “not only in science”, or to speak in the name of an institution “not [...] limited by the borders of nation-states” is not necessary condemnable — as long as it does not imply a *mixture* of science and politics, as I shall argue at the end of this section, which is precisely what Latour does. Indeed, for Latour, the “basis of the authority” of scientists does not rest on the fact that they make true statements about nature, but rather on a “very strange system of election and proofs”. Apparently it is the power of the scientific *institution*, and the fact that scientists are assembled in a “political body”, that founds scientific authority — and not the fact that scientists tell the truth about the world.

Similarly, according to Latour (2015, 6th conf., n. 68-69), it is the “visibility of their networks” which makes the climate scientists “more credible”. It is worth quoting Latour’s confusing text at length here:

“The more climate skeptics maintain the old idea of a Science spread more or less everywhere without costs, the more climatologists are compelled in turn to keep foregrounding the scientific institutions on which they depend, and the more they consider themselves as a people endowed with specific interests trapped in a conflict with another people over the production of a series of pertinent data” (ibid., Eng. trans.).

There are several problems with this first sentence. First, Latour again contradicts what he has been saying before about climate skeptics who were supposed to have gone beyond the “old idea” of science, which keeps separate the descriptive from the prescriptive. What is more, there is no logical link between this first proposition and the second one which states that climatologists would be “compelled in turn to keep foregrounding the scientific institutions on which they depend”: one would rather think, on the contrary, that if climate skeptics decide to fight the “battle” on the ground of classical science, then the best way to defeat them is to stick to this ground, and let the facts speak for themselves. Finally, the last proposition tries to reconcile a highly political and even partisan claim — enjoining scientists to consider themselves as “a people endowed with specific interests trapped in a conflict with another people” —, with a very factual

and scientific endeavour — pertaining to “the production of a series of pertinent data”. All these inconsistencies do not hinder Latour, who continues:

“Am I mistaken in thinking that, for the first time in the history of science, it is the very visibility of their network that could make scientists more credible? Precisely because they are being more violently attacked by the climate skeptics in the name of epistemology, for the first time they have to count on the institutions of science as their own way of attaining objective truth. Perhaps they will finally agree to acknowledge that, the more precisely their knowledge is situated, the more solid it is? Instead of alternating abruptly between an impossible universality and the narrow limits of their own “point of view,” it is because they extend their set of data from instrument to instrument, from pixel to pixel, from reference point to reference point, that they may have a chance to compose universality — and to pay the full price for this extension. The geologists, geochemists, and other geographers would be less schizophrenic if they agreed to call themselves Gaia-ologists, Gaia-chemists and Gaia-graphers! If the problem of composition is so crucial, it is because we can find in climate science not the “gaya scienza” evoked by Nietzsche but a science of Gaia that would finally be compatible with anthropology and with the politics for which we have to struggle”.

Let us pass on the many oddities of this passage, such as the mysterious “price” to pay, the “schizophrenic” scientists, the reference to Latour’s mystical concept of Gaia, the play on words in the end. The only thing the reader vaguely understands is that not only does the credibility of the scientists come from their networks, but that the “objective truth” they can attain and claim is fundamentally institutional. So objectivity and truth themselves are conceived by Latour as pure social, institutional products, which have nothing to do with an external reality, independent from the social. Of course, this conception is untenable. As Malm (2018, ch. 4, n. 27-29) brilliantly summarizes, for Latour:

“[...] the climate scientists are not right. They have just been more successful than you [climate deniers] in attracting allies. Accept that, and accept that everything is settled in trials [...] and that your proposition about the world has neither more nor less validity than the present consensus. [...] the climate denier should forget about the question of who is objectively right and instead put his trust in the enormous institutional apparatus of science. Right being a function of might, the denier ought to surrender to the right-might of the scientific consensus. At the time of this writing, Latour has yet to explain how this assessment is affected by the ascent of climate denialism to the most powerful state apparatus in the world”.

Logically, Latour’s equivalence of truth with power can only end in a warlike conception of science (2015, Eng. trans., 7th conf., n. 66-end):

“If the Humans and the Earthbound⁴¹ are at war, this could also happen to “their” scientists in conflict. Naturalist scientists — those who proudly assert that they are “of Nature” — are unfortunate figures, bound to disappear, disembodied, behind their Knowledge, or to have souls, voices, and places, but at the risk of losing their authority. In contrast, earthbound scientists are embodied creatures. They form a people. They have enemies. They belong to the territory outlined by their instruments. Their knowledge extends as far as their ability to finance, to control, to maintain the sensors that make the consequences of their actions visible. They have no scruples about acknowledging the existential drama in which they are engaged. They dare to say how afraid they are, and from their viewpoint such fear increases the quality of their science rather than diminishing it. They appear clearly as a new form of non-national power that is explicitly participating as such in geopolitical conflicts. If their territory knows no national boundaries, this is not because they have access to the universal, but because they keep on bringing in new agents to be full participants in the subsistence of the other agents. Their authority is fully political, because they represent agents who have no other voice and who intervene in the lives of many other agents”.

Here we recognize Latour’s predilection for emotions in science as well as in politics, constructivism — the knowledge of the scientist extends as far as their financing capacity, etc.—, relativism — they do not have access to the universal —, unbridled agency distribution, and so on. We also find, again, the idea that scientists represent a “non-national power” participating in “geopolitical conflicts”, and whose territory “knows no national boundaries”. And again, the appeal to political engagement is not, in itself, blameworthy, as long as it remains separate from the practice of science. But here as before, the problem is of course that it is not the case, but rather the contrary. Thus, the authority of the scientists is “*fully* political” (my emphasis), not epistemic in the least. Indeed, “The earthbound scientists no longer try to be the third party with an overview in all discussions. They are just one party; sometimes they win, sometimes they lose. They are of this world. For them, there is no shame in having allies” (ibid.). So they have no special (i.e. epistemic) claim to authority⁴², they just belong to one camp in the battle among many others. And if incidentally they win, it will only be because they belong to the mightiest network or institution. The problem is, of course, that this warlike discourse is not based on facts — for example, in the case of climate change denialism, which camp is right and makes assertions based on facts, and which is not — but merely on political alliances and emotions.

⁴¹ The partisans of Gaia, in Latour’s mysticism.

⁴² Elsewhere Latour (2015, Eng. trans., 8th conf., n. 16-17) denies “the authority that [the sciences] in any case never had”.

§3.2.2. Politically established facts are no ground for action

As Hansson (2018, p. 66, my translation) writes:

“Science is a social repertory of factual statements. Such a repertory has a meaning only for beings who, individually, separate their factual beliefs from their other attitudes and reactions concerning what happens around them. [...] If we did not separate an independent set of factual beliefs, certainly the content of what we call our beliefs, feelings and instincts would be a composite mix, and we would have no way or inclination to separate the facts from our reactions to them”.

According to Hansson, we need to separate facts to reach practical rationality. This is true not only at the individual, cognitive, level, but even more at the collective, political level: “In an organized process of collective decision taking, such as the legislative process or the elaboration of policies, we tend to develop this characteristic [of isolating facts] at an increased level” (ibid.). Indeed, “to communicate and think together and coordinate our actions”, we need to share “a common series of factual beliefs” (ibid.).

Now, we might ask Latour, what is supposed to distinguish scientifically established facts, such as climate change, from other, politically established facts, such as the “alternative facts” of climate deniers? We find nothing in Latour’s conception to answer this question. On the contrary, for Latour the facts established by climate science are as political as other politically established facts, such as those invoked by climate deniers. But then why should prefer one camp to the other? And in particular, why should we act to mitigate climate change? Because Latour’s conception affirms that *everything is political*, there are consequently no *factual* statements to ground our political decisions — all we are left with are equally political competing statements. Thus, we have no more (objective) reason to act to mitigate climate change. Here we find the same pernicious effect as for agency: by affirming in theory that everything (facts or entities) is political, Latour makes this politicization impossible in practice, since factual statements are not distinguished from other statements — or, in the case of agency, humans have no more responsibility than any other entity.

Worse, if no objective criterion is available for choosing between different statements or versions of — socially constructed — nature, the only criteria we are left with are *subjective* criteria, such as personal, ideological or emotional preferences. Thus Latour’s conception not only fosters relativism or political

inaction, but potentially “post-truth”,⁴³ that is, the very opposite of the “common series of factual beliefs” Hansson calls for. The emotional conception of politics in Latour (2017), whose goal is “to canalize certain political emotions towards new objects” (p. 11), and in which expressions such as “political energy” or “emotions” abound, is particularly illustrative of this tendency.

§3.2.3. Politicization of science does not increase trust in it

Finally, let us show why, contrary to what Latour claims, increasing the politicization of climate science does not increase trust in it. For doing so, let us analyze one particular form of this argument (foreshadowed in the previous section), exposed in Latour (2015) and (2017), as well as — in a lighter version — in his recent interviews in newspapers (Kofman 2018, Slettholm 2018, O’Brien 2019).⁴⁴ The idea is basically that scientists do not communicate enough on how they really — according to Latour — make science, and this would explain why scandals such as the climategate have had bad consequences in public opinions. Accordingly, Latour recommends to communicate more on how scientific facts are culturally determined, and that scientific objectivity depends on social processes and political negotiations. According to Latour, such insistence will increase trust in science. For example, in the *New Statesman*, we find a quote of Latour saying that “[t]he more we show how science is made, the more we can talk with credibility about what it achieves” (O’Brien 2019, p. 16). This line of reasoning seems, in principle, appealing: indeed, the social and cultural components of science — which is fundamentally a human enterprise — should not be neglected.

The problem is of course that Latour pushes this idea to its extreme, since he most often *reduces* science to its social, or rather hybrid, construction, as we have seen. What Latour most often shows is *not* “how science is made”: rather, it is a fantasy coming from his sole mind, where bacteria have intentions and forests migrate (Latour 2017).

There is, however, one occurrence where Latour seems to apply this conception aptly: namely, the climategate, which he takes great care to designate as a “false controversy” (2015, 5th conf., n. 29-30):

⁴³ According to the *Oxford English Dictionary*, post-truth happens when “objective facts have become less influential in shaping public opinion than appeals to emotion and personal belief”.

⁴⁴ According to O’Brien (2019), “Latour’s intention was never to undermine public trust in science. Indeed, his most recent book, *Down to Earth [Où atterrir ?]*, accepts climate change as an urgent fact”. Here we see that Latour’s strategy to rhetorically invoke scientifically established facts works.

“The climate skeptics thought they could weaken these scientific truths by 'revealing' that they had been produced by men and women! As if such a revelation ought to provoke a scandal! As if it were impossible to accept the idea that global warming was actually real, 'outside' in nature, without any manipulation of the data, and that such a certainty came *nevertheless* from within the networks of scientists exchanging millions of emails and sharing interpretations of data concerning computer models, satellite views, and fragments of sedimentary cores obtained at great cost from dozens of expensive explorations! As if it were still impossible to solve this problem of bifocal vision and to follow the way facts are at once carefully *fabricated* and *made factual owing to the care* taken in such fabrication” (ibid., Eng. trans.).

Here, Latour seems to present an equilibrated point of view. He acknowledges — apparently careful to be on the right side of the battle, to use his warlike vocabulary —, that global warming is “actually real, ‘outside’, in nature”, and not a social or hybrid construct, grounded only in the “alliances” or “networks” of the scientists.⁴⁵ He seems to present a reasonable view of scientifically established facts which both refer to something out there, independent of society, and are at the same time (partial) social constructs — since science itself is a social enterprise. One must underline that scientific facts are only *partially* socially constructed: they are not *fully* socially constructed — otherwise they would not refer to something out there. Latour’s phrasing — “such a certainty came *nevertheless* from within the networks of scientists”, and nothing else, so it seems — may cast doubt on this point. This doubt is strengthened by the bizarre last sentence, evoking “fabricated” facts “made factual”. Rather than a true articulation of the social and the factual dimensions of science, Latour seems to juxtapose them rhetorically.

In an appended note (29 in the French edition), Latour explains that “the artificially fabricated controversy on the existence of a link between human activity⁴⁶ and global warming only comes from the ‘revelation’ of the daily work of the scientists”. But, as Turner (2014, ch. 15) has showed, the climategate, and climate science more generally, is not exactly what we would call “normal science”, but rather “post-normal science”, in the sense that it is highly politicized. Turner describes the infraction of the Mertonian norms of communism, disinterestedness and organized skepticism in the climate science community, and in the International Panel on Climate Change in particular, through conflicts of interest, a lack of independence of the peer review process, procedural anomalies, ideological preferences or political solutions affirmed without any

⁴⁵ Incidentally we learn that there is, after all, a nature apparently separate from society or culture, contrary to what Latour has been claiming throughout the book. Compare to § 2.2.2.

⁴⁶ Another example of Latour distinguishing humans from non-humans.

link with the domains of expertise of the scientists or their knowledge on climate. He shows how such infractions jeopardize the credibility of the scientists concerned. Indeed, the climategate has actually undermined the credibility of climate science in American public opinion (Leiserowitz et al. 2013). So Latour's focus on the climategate as representative of the way science is practiced is unfortunate, to say the least. It is not from such episodes that science takes its authority.

What is more, if scientists should behave like warriors, as Latour urges them, then clearly this implies breaching the Mertonian norms: they should not communicate their results to their "enemies", they should do everything they can to favour their "allies", etc. So not only does Latour present post-normal, or abnormal, science, as the new norm, but he completely discards the scientific ethos (Merton 1942).

Finally, Latour asks the climate scientists to abandon "cold", "rational", "disinterested" argumentation, and instead embrace shouting, rhetorical fights, let themselves be submerged with emotions (2015, 1st conf., n. 54-55). Of course, this is the worst thing to do: this gives deniers the stick to beat scientists with, and to enter the debate with them, something which Latour precisely wants to avoid (ibid., n. 51-55). This also contradicts Latour's lamenting that climate scientists appear like "excited", "illuminated", "militants of a cause", but rather amplifies this impression.

§3.2.4. For a distinction between science and politics

To conclude this section, Latour's conception is not only epistemologically contradictory, but also politically counter-productive. Indeed, the politicization of scientists is bound to turn against themselves: it is precisely the fact that they base their claims on scientifically established facts which distinguishes them from climate change deniers. The distinction between science and politics is a force, not a weakness, as Latour claims, of their position. Science takes its credibility from the facts it establishes. Its statements are supposed to correspond to an external reality, they are not just the result of political negotiations. It is the distinction of science from politics which grounds its authority, not the mixture or hybridization of the two.

Otherwise, if the statements of science are purely political, without a factual basis — as those of their opponents —, then nothing distinguishes the climate scientists from the deniers, and everything becomes a pure ratio of power. As Malm suggests with the Trump administration, this strategy can bite back.

Of course, my claim is not to condemn any political engagement or militancy on the side of scientists, which is highly respectable *in itself* — even if one must be careful about possible side effects. It is rather to criticize the conflation of science and politics, and even the collapse of the former into the latter — as Latour recommends. Political engagement must remain *distinct*⁴⁷ from science, while at the same time *informed by* it. Otherwise, the politicization of science threatens its credibility.

§4. Conclusion

By now, it should be clear that Latour's work is not scientific, nor even rational most of the time. Latour's writings may have an aesthetic or emotional interest, but should not be considered as works belonging to social or human science. The problem is that Latour seems to consider his writings as belonging to the latter category, since he pretends to provide theoretical explanations and even political recommendations — whether to climate scientists or to “the good people”. It is important to make this point clear since, as we have seen, Latour hides his mystic conception behind invocations of scientific facts, such as anthropogenic climate change, and seemingly good intentions.

As we have seen, Latour's conception is contradictory from the epistemological point of view and counterproductive — and even dangerous — from the political point of view. Thus, Latour's political recommendations should certainly not be followed.

With respect in particular to the epistemological point of view, I showed that Latour does not reconcile his mention of scientific facts with the rest of his conception. Rather than standard bullshit — where he would just not care about those facts —, I argued that Latour's conception is more akin to pseudo-profound bullshit — where he mentions the facts in order to create an impression of verisimilitude. That is a more dishonest posture than bullshit *tout court* and probably a more dangerous one as well. It seems that Latour understands that to be scientifically credible, and politically decent, he has to somehow acknowledge anthropogenic climate change — while advancing his own philosophical agenda. His epistemological position seems to be based on his personal, ideological preferences, rather than on the facts. As Frankfurt explains, the bullshitter's only concern is himself, not the facts: he “does not care whether the things he says describe reality correctly. He just picks them out, or makes them up, to suit his

⁴⁷ This word is maybe more appropriate than “separate”, which may connote the absence of relation whatsoever between science and politics – which is not the view advocated here.

purpose” (2005, p. 56). In this respect, it is not exaggerated to say that by writing pseudo-profound bullshit and calling for the politicization of climate science, Latour fosters our current post-truth predicament, in which subjective emotional or ideological motivations are more important than objective criteria or facts.

ACKNOWLEDGMENTS

I thank Angelo Fasce and the anonymous reviewer for their very helpful and relevant remarks. Of course I am solely responsible for the content of this article.

REFERENCES

- AYKUT, Stefan and DAHAN, Amy (2015). *Gouverner le climat? Vingt ans de négociations internationales*, Paris : Les Presses de Sciences Po.
- BARBEROUSSE, Anouk (2011). “Philosophie des sciences et études sur la science”. in: *Précis de philosophie des sciences*, edited by Anouk BARBEROUSSE, Denis BONNAY and Mikaël COZIC. Paris: Vuibert, 2011, pp. 206-231.
- CASSIRER, Ernst (1925). *Philosophie der symbolischen Formen, zweiter Teil, Das mythische Denken*, Berlin: Bruno Cassirer Verlag.
- COCCIA, Emanuele (2019). “Gaïa ou l’anti-Léviathan”, *Critique* 860-861 (1): pp. 32-43. Available online: <https://www.cairn.info/revue-critique-2019-1-page-32.htm>.
- CRIST, Eileen (2004). “Against the Social Construction of Nature and Wilderness”. in: *The Wilderness Debate Rages On*, edited by Michael P. Nelson and J. Baird Callicott. Athens and London: The University of Georgia Press, 2008, pp. 500-525.
- DE MEYER, Thibault (2016). “Bruno Latour, *Face à Gaïa. Huit conférences sur le Nouveau Régime Climatique*”, *Lectures*, Les comptes rendus, published on the 6th of January 2016, consulted on the 3rd of May 2019. URL: <http://journals.openedition.org/lectures/19763>.
- DESSENDIER, Emmanuel and DIEUAIDE, Patrick (2018). “Bruno Latour, *Où atterrir? Comment s’orienter en politique*”. *Ecorev* 46 (1), pp. 142-148. Available online: <https://www.cairn.info/revue-ecorev-2018-1-page-139.htm>.
- FRANKFURT, Harry (2005). *On Bullshit*, Princeton: Princeton University Press.
- HAMILTON, Clive (2013), *Les apprentis sorciers du climat : raisons et déraisons de la géo-ingénierie*, transl. Cyril Le Roy, Paris: Seuil.
- HAMMAN, Philippe (2016). “Face à Gaïa. Huit conférences sur le nouveau régime climatique, B. Latour”. *Sociologie du travail / Comptes rendus* 58: pp. 458–485. DOI: <http://dx.doi.org/10.1016/j.soctra.2016.09.002>.
- HANSSON, SVEN OVE (2003). “Editorial: Is Philosophy Science?”, *Theoria*, 69 (3), pp. 153-156.
- HANSSON, Sven Ove (2018). “Politique du risque et intégrité de la science”. in: *Risque et expertise*, edited by Alexandre Guay. Besaçon (France): Presses universitaires de Franche-Comté, 2018, pp. 55-86.
- HEINICH, Nathalie (2007). “Une sociologie très catholique ? À propos de Bruno Latour”, *Esprit* 334 (5), pp. 14-26.

- KIDNER, David W. (2000). “Fabricating Nature: A Critique of the Social Construction of Nature”. Pre-publication. [Published in *Environmental Ethics* 22 (4): pp. 339 – 357].
- KOFMAN, Ava (2018). “Bruno Latour, the Post-Truth Philosopher, Mounts a Defense of Science”, *New York Times*, 25 October 2018.
- LAMY, Jérôme (2014). “Des disciples bien disciplinés : à qui Latour ?”, *Carnet Zilsel*, published 4th Oct. 2014, consulted 23rd May 2019. URL: <https://zilsel.hypotheses.org/1199>.
- LARREGUE, Julien (2018). “Bruno Latour au Théâtre national de La Criée : l’acteur qui veut étendre son réseau”, *Zilsel* 4 (2): pp. 404-411. DOI: 10.3917/zil.004.0404.
- LATOUR, Bruno and WOOLGAR, Steve (1979/1986). *Laboratory Life. The Construction of Scientific Facts*, Beverly Hills: Sage Publications Inc.
- LATOUR, Bruno (1984). *Les microbes. Guerre et paix suivi de irréductions*, Paris: Métailié. [English translation available: *The Pasteurization of France*. Translated by Alan Sheridan and John Law. Cambridge, Massachusetts and London, England: Harvard University Press, 1988].
- LATOUR, Bruno (1987). *Science in Action. How to follow scientists and engineers through society*, Cambridge, Massachusetts: Harvard University Press.
- LATOUR, Bruno (1988a). “The Politics of Explanation: an Alternative”. In: *Knowledge and Reflexivity. New Frontiers in the Sociology of Knowledge*, edited by Steve Woolgar. London: Sage Publications, p. 155-176.
- LATOUR, Bruno (1988b). “Ramsès II est-il mort de la tuberculose ?”, *La Recherche* 309: pp. 84-85.
- LATOUR, Bruno (1991). *Nous n’avons jamais été modernes: essais d’anthropologie symétrique*, Paris: La Découverte. [English translation available: *We have never been modern*. Translated by Catherine Porter. Harvard: Harvard University Press, 1993].
- LATOUR, Bruno (2002). *Jubiler ou Les tourments de la parole religieuse*, Paris: Le Seuil / Les empêcheurs de penser en rond. [English translation available: *Rejoicing or the Torments of Religious Speech*. Translated by Julie Rose. Cambridge, UK: Polity Press, 2013].
- LATOUR, Bruno (2004). “Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern”, *Critical Inquiry* 30 (Winter 2004): pp. 225-248.
- LATOUR, Bruno (2010). “Coming out as a philosopher”, *Social Studies of Science* 40 (4): pp. 599-608.

- LATOUR, Bruno (2013). *Facing Gaia. Six lectures on the political theology of nature*, Gifford Lectures on Natural Religion, Edinburgh, 18th-28th of February 2013. Available at: https://eportfolios.macaulay.cuny.edu/wakefield15/files/2015/01/LATOUR-GIFFORD-SIX-LECTURES_1.pdf.
- LATOUR, Bruno (2015). *Face à Gaïa. Huit conférences sur le nouveau régime climatique*. Paris: La Découverte. [English translation available: *Facing Gaia. Eight Lecture on the New Climatic Regime*. Translated by Catherine Porter. Cambridge, UK: Polity Press, 2017].
- LATOUR, Bruno (2017). *Où atterrir ? Comment s'orienter en politique*. Paris: La Découverte. [English translation available: *Down to Earth. Politics in the New Climatic Regime*. Translated by Cathy Porter. Cambridge, UK: Polity Press, 2018.]
- LEISEROWITZ, Anthony; MAIBACH, Edward; ROSER-RENOUF, Connie; SMITH, Nicholas and DAWSON, Erica (2013). "Climategate, public opinion and the loss of trust". *American Behavioral Scientist* 57 (6): pp. 818-837.
- MALM, Andreas (2018). *The Progress of this Storm. Nature and Society in a Warming World*. London, New York: Verso.
- MERTON, Robert K. (1942). "The Normative Structure of Science". In *The Sociology of Science: Theoretical and Empirical Investigations*, Chicago: University of Chicago Press, 1973.
- NORGAARD, Kari (2011). *Living in Denial, Climate Change, Emotions, and Everyday Life*, Cambridge, Massachusetts: The MIT Press.
- O'BRIEN, Hettie (2019). "The philosopher fighting to save science from itself", *New Statesman*, 8-14 February 2019, pp. 16-17.
- PENNYCOOK, Gordon; CHEYNE, James Allan; BARR, Nathaniel; KOEHLER, Derek J. and FUGELSANG, Jonathan A. (2015). "On the reception and detection of pseudo-profound bullshit". *Judgment and Decision Making* 10 (6): pp. 549-563.
- RAYNAUD, Dominique ([2003] 2018). *Sociologie des controverses scientifiques*, Paris: Editions Matériologiques,
- SLETTTHOLM, Andreas (2018). "Postmodernistene har ikke skylden for Trump", *Aftenposten*, 26 November 2018.
- STAMENKOVIC, Philippe (forthcoming). "Y a-t-il un pilote dans l'avion? Sur le dernier opus «atterrant» de Bruno Latour". *Alliage*.
- TURNER, Stephen (2014). *The Politics of Expertise*. New York, London: Routledge.



NOTES ON CONTRIBUTOR

PHILIPPE STAMENKOVIC is associated researcher in the philosophy and history of science at Aix Marseille University. His research interests include political philosophy of science, science and society relationships, and history of philosophy of science.

CONTACT INFORMATION

Philosophy and History of Science Department, Aix Marseille University, 26 rue Castagnary, 75015 Paris - France. e-mail (✉): p.stamenkovic@free.fr · [iD: http://orcid.org/0000-0003-4747-8821](http://orcid.org/0000-0003-4747-8821)

HOW TO CITE THIS ARTICLE

Stamenkovic, Philippe (2020). «The contradictions and dangers of Bruno Latour's conception of climate science». *Disputatio. Philosophical Research Bulletin* 9, no. 13: pp. 00–00.