

THINKING WITH | The alienation of knowledge: A theoretical frame

1. For a sociology of sociological controversies

»Dans une controverse technologique, ce qui est intéressant c'est ce qui l'amène à être technique et ce qu'il faut éviter ce sont les controverses où il ne reste plus qu'un social résiduel et des technologies durcies.« (Callon, 2013).

One should avoid controversies where only a »residual« social and hardened technologies are left. Sociology would only suffer from it and become itself the continuation of those technologies rather than science (Callon, 2013). With this claim, Michel Callon closes his article *Pour une sociologie des controverses technologiques* (For a sociology of technological controversies). Originally published in 1981, this particular piece is probably one of the founding works of what is known as Actor-Network Theory/sociology of translation/sociology of associations that set Callon, alongside Bruno Latour, John Law, Madeleine Akrish and others, into a new venture (an adventure I might dare) which unarguably redefined sociology and proposed a novel perspective on how to look at science and knowledge. One of their main objectives was to show to which extent the construction of scientific facts and truths was never only a matter of pure science, never an undiscussed consensus, but embedded in constant negotiations between a myriad of interests, which are sometimes situated outside the laboratory itself (Knorr-Cetina, 1999; Latour & Woolgar, 1986). In other words, the production of scientific and, so explains Callon,

technological knowledge, is taking place in-between what they name »controversies«. Those controversies unveil the different interests and states of negotiations which »precede and delimit« the choices being made in research and further »constitute a privileged terrain to study the mechanisms through which certain solutions, which impose themselves locally first, end up to spread across society as a whole.« (Callon, 2013, trad. by the author)¹. However, as Callon argues at the end of the quoted article — as a sociologist, one should avoid to »tackle«, or to »dive« into controversies that might appear too hermetic or to which solutions have been found long ago. The danger of launching such a debunking enterprise could only subject sociology to the technologies of what it attempts to analyse, or so it seems. Indeed, for Callon, controversies within fields or domains already strongly constituted, organised, become too restrained, only a »relative choice« between alternatives following a cost/profit calculation rather than a real issue. Those technologies become self-evident, appear as natural, and the resulting social presented as pre-constructed, structured by the technologies and machines at play. It gives a sense of irreversibility². This is why Callon rather proposes to consider controversies which seem more open, where negotiations are multiple and the decisions not definitive, not reduced to an array of pre-defined choices (Callon, 2013).

Still, one could ask: isn't one leaving unconsidered and untouched a larger slice of what science is, or better said, of what is considered to be acceptable science? Aren't sociologists taking part in one of those controversies without really willing to take them seriously, out of arrogance perhaps, or fear, memory loss, laziness³? A set of questions directly followed by another one: If that is the case, what might those

1 Original quote : »Ensuite elles constituent un terrain privilégié pour étudier les mécanismes par lesquels certaines solutions, qui s'imposent d'abord localement, finissent par s'étendre à toute la société.« (Callon, 2013).

2 Here, Callon gives a few examples, ranging from nuclear energy to biotechnologies (Callon, 2013).

3 Those adjectives are of course not thrown at Callon or ANT in general, as they themselves are the few attempting to ask and answer those questions.

controversies within sociological theory look like? Are they located in paradigmatic differences? In methodological disparities? To a certain extent yes, but those are discussed relentlessly in sociology. Preceding those turf wars thus arises again another question worth asking, encompassing much more streams, traditions, including everyday practices and those of colleagues, inside and outside one's own chair, own field of expertise: how does sociology conceive its own work as knowledge production? To put it differently, in interrogating the construction of scientific facts, which is an interrogation about the construction of knowledge and truth, shouldn't one also question what is being done and how it is being done? Shouldn't one look at how, as sociologist, as scientist, they understand knowledge and apply it to their work? By accepting that knowledge production is not a straight line, but a network of interests and negotiations, can one look at themselves and put their own epistemological practices to the test? If knowledge about solar neutrinos or scallops (Callon, 1986) is traversed by controversies, sociological knowledge, and knowledge construction in itself might be as well.

The *techniques* used in sociology — without being exhaustive — constitute an array ranging from various sets of methods (quantitative, qualitative, mixed) to the processes of writing and publishing books and articles, from speeches to audiences mostly composed of scholar colleagues and/or students to research projects proposals, asking/begging for finances. And so on and so forth, the list is long. Those are the »norms« and are rarely discussed as such. Even the disputes between preferred methods, theoretical convictions, paradigms, might they be general or concerning points of detail, are accepted as that norm, as what it means to be a sociologist, a representative of a so-called multi-paradigmatic science. Among those techniques, some are generally considered »scientific« at first glance. As such, even if one fraction or the other sees those particular techniques as »the bad kind«, they probably won't be denied their sociological value, they still are part of the same extended family, like that weird third grade cousin only seen at funerals or the strange conservative relative one doesn't want to talk politics with

at Christmas dinner⁴. They are still tolerated, they are part of the game. The quantitative–qualitative opposition, which is still very much active, remains based upon the mutual recognition of colleagues as sociologists. That does not take away the intensity of the debates, sometimes staged, but sometimes central to the definition of an academic field. In that manner, the processes of researching, presenting, representing and debating the research is the everyday routine, vital for the existence of sociology as a *science*⁵. But again, it's part of the job, no one seems to deny that. It is an intellectual work, which includes along the way practices of reasoning, interpreting and writing, considered scientific. At the same time, it is a scientific work including not very scientific practices (travelling, enjoying evening buffets at conferences, justifying expenses etc.), which are part of sociology as an academic field, without apparently being sociology itself.

Based on Callon's definition, one could therefore easily argue that those practices are indeed the result of controversies, perhaps long gone (they are not, as I will present later (Kissmann & Van Loon, 2019a)), perhaps indeed — as he argues — too dangerous to discuss (but dangerous to/for whom?), perhaps not even harshly debated (actually, they are), but that are representative of how what it is to »do sociology«, and more generally, what it is to »think sociologically« and to produce sociological knowledge, is conceived. The state of affairs in those matters,

4 The staging of the debate in German sociology between the Deutsche Gesellschaft für Soziologie and the Akademie für Soziologie, even if raising interesting questions, is one of those examples (see the debate: <https://www.youtube.com/watch?v=6KXOLVYuVYc>). However, it is in itself nothing new to sociology, as the main conflict revolves around which paradigms should be preferred. It can be summed up as another expression of the qualitative versus quantitative debate. Nevertheless, the issue is not only of methodological or epistemological nature, but becomes political as well, for instance when dealing with research funding. The question if it builds a controversy in the sense of Callon, or only presents »relative choice«, remains open.

5 A routine implying movement, over long distances, in a short amount of time. I'd be curious to see scholars' carbon balance sheets, at least before reconfiguring the ways of doing things because of the Covid-19 pandemic.

just as in any other kind of practices, is not an *ex nihilo* happening, but has historicities, traditions, ramifications, and of course, consequences. The issue that I intend to further discuss is that those controversies, which do have consequences for sociology as a science, also have a strong impact on how one conceives their own work, and how, as young researchers writing PhDs especially (but not exclusively) one engages more or less directly with those processes, if at all.

2. Defining the controversy

Practices of »doing sociology« have been — and still are — in the middle of controversies in the sense of Callon and I would like to argue that one in particular seems to remain vivid. For the sake of it, let's be bold with the definition of the argument: *knowledge has been alienated from materiality*⁶. It has been reduced to an intellectualised mode and became the prerogative of reason, thus denying consciously or not, the plurality of its modes of production (Montebello, 2015b). The formulation of the controversy might appear simplistic at this point, and although it constitutes the core of the argumentation, it is alone (in that form) far from enough, and several important precisions are more than needed. *Knowledge* mostly means knowledge production as in the practices of producing knowledge. Again, the question stems from what one is doing, as a scientist. And because this is a sociological work, knowledge production in sociology in particular. This is important to specify, because from this controversy and its field of possible unfoldings should emerge not a work of epistemology or metaphysics but a work of sociology including questions coming from various philosophical domains.

6 The formulation of the controversy, which carries the reflection of this work, bears a relevance that extends beyond sociology. Both April issues of 2019 and 2020 of the *Zeitschrift für Medienwissenschaft* (published by the German Society of Media Theory) include either in their editorial or in their articles the necessity to reflect on scientific practices of knowledge production (Fahle et al., 2020; Gramlich & Haas, 2019).

The controversy concerns the thinking as well as the doing in sociology and sociology is never very far from philosophy. Thinking is a doing and doing is a thinking as I will further discuss later on (Manning et al., 2018).

A few words about *knowledge* then. I find it interesting to look at the different etymologies of the word to see which characteristics are brought in. Maybe it is because I am a French citizen, based in Germany and writing in English, but the words and meanings tend to gain in comparison value, as they sometimes mix up how I look at things and try to grasp them. Still, this small exercise is not meant as an exhaustive analysis in comparative linguistics but rather constitutes a gathering of meanings and trajectories. It seems to be an obvious statement, but more often than not the etymologies and translations of the same word in different languages present disparities in their understanding but also in their usage, giving a same »concept« a very particular colouring. For instance, *knowledge* in French can be either *savoir*, from *sapere* (in Latin: to know, to taste, to try) or *connaissance*, from *cognoscere* (in Latin: to know, to learn, to recognise, to be acquainted with) but also bears the idea of a »being-born-with«, a co[n]-naissance. If both terms mean *to know*, the word *connaissance* comes closer to the fact of knowing somebody (je te connais), and somewhat brings a more material, physical, intimate even, dimension to knowledge. The physical encounter is producing knowledge. In German, two words can be found as well: *Wissen* and *Kenntnis*. The first one is relatively similar to *savoir*, the second one to *connaissance* and both can be understood as *knowledge*. However, when one looks at the definitions, in French as well as in German, *savoir* and *Wissen* can be understood as a gathering of *connaissances* or *Kenntnisse*. *Savoir/Wissen* is a more general term, a lexicon, a database, where particular *connaissances/Kenntnisse* can be found. That might explain why there is a *Wissenssoziologie* rather than a *Kenntnissoziologie*. However, and that might be interesting to sociologists only, both *sociologie du savoir* and *sociologie de la connaissance* can be found in French. If the two meanings are more or less interchangeable, the latter one is more often used as a direct translation of »Wissenssoziologie« (is there even a *Kenntnissoziologie*?). Finally, *knowledge* in English comes from *knowen* (to know,

to recognise) but is also related to *knowlechen* (to find out) and — as already seen — can be used for both *Kenntnis* and *Wissen*.

Either way, the French words of *savoir* and *connaissance* bring from their Latin etymologies the idea that knowledge is material: on the one hand, it means *to taste*, on the other hand, it can mean to physically *know* someone, a periphrasis for sexual intercourse. In each case however, knowledge is material, even the cognitive process is corporeal, linked to the lived experience, constitutive of it even. The same materiality is also present in the earlier uses of *knowledge* as in »the carnal knowledge«. The German word *Wissen* presents one other particularity. Its indo-germanic roots presumably lead back to the idea of »seeing«, which even if it denotes a material character, also might underline the link between knowledge, visibility and rationality, as I will later explain⁷. However, those examples show that the use of knowledge, as in the actual practice of producing knowledge (not the use of the concept), remains quite homogeneous in its materiality despite the slight differences in etymologies. The concept of knowledge on the other hand, that's another story, there is even a whole branch of sociology dedicated to it.

What is knowledge, one might then ask? I can easily say for now, with encyclopaedias as backup (whatever it means), that knowledge is the saving of more or less certain information (facts, theories etc.) and that it seems necessary for action and decision-making. A potentiality for future assessment⁸. Very quickly however, one can see how problematic this apparently simple definition can become. Knowing is *having* — I have knowledge on a topic. It is a gathering, a collection. The Greek word for gathering, *legein*, interestingly gives another dimension to knowledge by already implying the *logos* (van Loon, 2017), as speech,

7 »Wissen«, in old German wizzan, would come from indogermanic root *weid*, which means »to see, to spot, to recognize, to discern«. For the full etymology, see (Kluge & Seebold, 2011).

8 At this point, one could easily deepen that superficial definition of knowledge, differentiating between *episteme* and *techne*, or invoking decisive concepts about knowledge, from the cartesian *cogito ergo sum* to Husserl's phenomenological reduction amongst many others.

comprehensibility, but also as accountability. Knowledge is something that one can possess, give, share, retain for oneself. It implies a distinction between a subject that knows, and an object (things, words) that can be known, which is a very Kantian definition and the basis of the controversy started above (Debaise & Stengers, 2017).

Others might rather understand knowledge/information as the travel of energy (De Landa, 1997). Knowing as *logos* is therefore the gathering of energy but this energy can also be seen as power. Non-metaphorically. As Foucault would argue, knowledge is a gathering of power that can constraint or liberate, create or destroy bodies (Foucault, 1990, 2008). Not only because it can be retained, but also through its delivery. It is very material and some theoretical constructs certainly back up this materiality: both Karl Polanyi's implicit knowledge and Pierre Bourdieu's incorporated knowledge are forms of knowledge that are embodied, »made« material again. They are directly linked to the body, to the material, and not so much to the process of logical reasoning. At least not any more or not entirely. However, one could point out that to become incorporated or implicit, knowledge must be explicit first, »outside« the body, or so it seems. This process would then somehow indicate that if knowledge exists outside bodies, outside materiality, there is a separation between mind/soul and body, between the intellect and the senses, thus echoing Descartes' mechanistic perspective (Canguilhem, 1952). To which one could argue that this distinction relies on an anthropocentric perspective that posits as central and particular the human bodies and minds (van Loon, 2012). Knowledge can be passed from bodies to other bodies, it is an exchange, an encounter, that itself is a flux of energy, in a non-metaphorical way.

When Jean-François Lyotard asks in *L'Inhumain* (1988) if thought can exist without a body, it could be understood in this way. Indeed, for Lyotard, thought needs a body, not necessarily as an existential need, not necessarily as the *software* needing *hardware*, but because of the process of thinking itself, which is part of the corporeal experience. In other words, thinking as a process is itself already corporeal, and needs to be thought of (or implemented?) that way: as a process emerging from within what is being processed, rather than two separated realms. The

question of thought, as a reflexivity possible through corporeal experience rather than a purely logical operation, thus becomes a question of knowledge. Following this thread, a possible issue with so-called *Big Data* might lie in what Lyotard is warning against. The question »what happens when data is cut from experience?« becomes a question of the materiality of knowledge itself, as a constitutive part of that experience. Cross-reference and behavioural algorithms are therefore only mimicking the analogical process of thought. They might quantitatively give an image of what experience looks like, but as Lyotard puts it, it lacks body, a certain thickness (Lyotard, 1988). Nevertheless and to a certain extent, this question of the inhuman also asks which bodies and which experiences are taken into account, and thus, who generates, or gathers knowledge?

3. The roots and implications

Before going further, another precision: however sociological this work may intend to be, this does not mean that it should — or even can — remain situated within the pre-defined boundaries and epistemologies that are deemed exclusively sociological. Sociologies of science and technology have shown how science practices include very unscientific processes. This statement, applied to sociology, means that sociological discourse can never remain exclusively sociological, in the classical sense: dealing with the construction of sociological knowledge, with its recognition as scientific knowledge, stating that knowledge has been alienated from materiality, is, as Latour notes in *Nous n'avons jamais été modernes* (2010b), dealing with a hybrid construction, where the hybridity itself comes from the separation of domains, of human/non-human, subject/object, nature/culture. This hybridity is a vast network including sociologists, of course, but also philosophers, philosophers who do not want to define themselves as philosophers, anthropologists and ethnologists, religious traditions, politics, natural sciences, the »modern human«, nature, the »social«, the Earth itself, knowledge, space, sound, silence, and so on, and so forth. This controversy is therefore part of a

vast network and finds itself in the midst of heterogeneous historicities and actors, even at the heart of relations of power and domination. It does not have one origin-story. It is rather part of processes evolving throughout the years, throughout centuries even, through travelling interests, ideas, actors never completely staying in one place. History with a capital H, even of ideas, was never a straight line (De Landa, 1997). The history of concepts is not either (Deleuze & Guattari, 2005). At this point, it is also important to note that the formulation of the controversy also already appeared numerous times before, in a roughly similar form, or posited very differently but implying similar debates, either concerning the development of modern sciences (Stengers, 2011), or the relation between science and technology (Canguilhem, 1952). In any case, those debates can be brought together through their main claim: thought has been split in two distinct realms, which are more or less communicating but always remain separated. Moreover, those debates, the theories and concepts they rely on, are going back to crucial issues of Western philosophy. It is not a necessary reminder to state the youth of sociology as an academic field when bringing up those questions. Still, it can only support the affirmation made above: it is never only a sociological discourse and sociologists are themselves caught up in the controversy. On that basis, I am not willing to deliver either an exhaustive history of the birth of sociology from within sociology or a detailed account of the evoked debates, which would end up becoming a history of dualist Western philosophies since Plato. Nevertheless, a few stepping stones, »key moments«, should be laid, mapping the way in order to explain the controversy more precisely.

What is often described as the defining starting point of the controversy itself are Kant's *Critiques* and his definition of *Aufklärung*, both commonly seen in Western traditions as one of the most important revolution in philosophy and science. A revolution which is still palpable in the everyday making-of science, but which did however bring with it what Alfred North Whitehead understands as an absurdity, a split in understanding human experience and nature, a *bifurcation*. From Kant's account result two different understandings — two separate existences even — of nature, which are being opposed: »the nature apprehended in

awareness and the nature which is the cause of awareness» (Whitehead, 2015, p. 21), nature »in itself« and nature »for us«. This has very strong consequences on how to conceive one's thinking. According to Kant, human beings are limited in their capacities of knowing, and are unable to know *things in themselves*. To phrase it differently using two other dualist philosophers, namely Descartes and Locke, whose definitions of primary and secondary qualities also compartment knowledge production, the primary qualities are the things-in-themselves that cannot be perceived and the secondary qualities are particular manifestations of the primary ones, or sensations (their colours, sounds etc.) (Montebello, 2015b). It is another platonic separation between the world of things that one physically (but doubtfully) experiences and the world of (pure) ideas revamped through modernity. However, this separation, this duality in Plato's thought, which led to the bifurcation between real and possible experience, is not so much between the pure idea as model and its representation as copy, which one could experience. As Deleuze shows, the more profound platonic duality is to be thought through the difference: between the copy and the simulacrum (Deleuze, 1981). Between the icon resembling the model, and the phantasm differing from it. For Deleuze, it is very moral view of the world, vouching for the resemblance, the copy, the icon, and against the simulacrum, which is not only a copy of a copy, but difference itself »externalising« resemblance (Deleuze, 1981). Platonism thus rejects the simulacrum in its creative potentialities, as becoming through difference, rather preferring a certain understanding of experience towards the »real«, in the philosopher's pursuit of truth, already defining what can be understood as knowledge and which is apparently separated from nature »in itself«⁹.

Coming back to Whitehead, the bifurcation is not actually the theoretical dualism itself, but the ensemble of processes, operations, prac-

9 For Deleuze, by putting back the simulacrum at the centre of experience, for instance in experimental artistic practices, new individuations are possible that are both real and possible. In reversing the platonic dualities, Deleuze is therefore proposing to »reunite« the domains of experience originating from Kant and weigh against the bifurcation (Longo, 2016).

tices that led to the categorisation and to the territorialisation of scientific thought and practice (Debaise, 2015a) and to a certain extent to the separation between science and society (Stengers, 2011). Consequently, by territorialising knowledge in human minds (and their perceptions), not only are »the objects« entirely separated from the human subject, but they are denied any kind of agency, remaining mere inert outcasts, that are acted upon, mere machines and slaves. It is inscribed as an inability to act — which is an inability to think. However, is it at the same time an inability to know (van Loon, 2012)? Reflecting on this bifurcation is already asking how objects can know and how knowledge can be produced. The subject–object dichotomy, the distribution of agency, the territorialisation of knowledge, have an impact on the very practices of production of that knowledge, it is a distribution of power, a hierarchisation between the human and nature, but also between who is defined as human and who is not. »Nature«, or the »objects«, only become data sources. They are denied the capability to act not only on the collected data, but on the way it is being collected, as if the methods were blind to their own object of inquiry.

However, looking at science the way STS did, it is evident that it is not really the case (Latour & Woolgar, 1986). As Latour explains it, two different orders are simultaneously at play, two different sets of practices which have been kept apart since the bifurcation. On the one hand, hybrid practices producing a network of nature and society, made of scientific research, political interests and »nature« itself. On the other hand, a separation between a nature that has »always been there« and a quite stable »society«, a separation between humans and non-humans (Latour, 2010b). Consequently, the more the world is being analysed and described by science, a natural world without man, and only (partially) understandable through Reason, the more that very natural world is being humanised, explained by the particular human Reason, but also »brought in« through hybrid practices (Montebello, 2015a). In other words, by locating nature as »the outside« one experiences, knowledge was also subjected to the bifurcation. Its production had nothing to do with nature itself, only with its apprehension, its understanding, as subjects. Our faculty of perception was itself seen as a human particu-

larity to experience the world, but only one-sided, with a world ready to be experienced by us. Still, by bringing the world in, hybrid practices annihilate the separation human/non-human, they even require from those objects to manifest themselves and be convincing, like Pasteur's microbes (Latour, 2001). At once, the acting potentiality of objects, negated faster than one could say »consciousness«, is being rehabilitated for the sake of knowledge. For Latour, this might show a blatant anthropocentrism, but more importantly, it exposes the paradoxical quality of the bifurcation. The issue he therefore sees in what he describes as the »Constitution of the moderns«, which is more or less a manual of the bifurcated nature, is not whether one side is right or wrong, but that the »moderns« let both co-exist in a very strange manner: »C'est parce qu'elle croit à la séparation totale des humains et des non-humains et qu'elle l'annule en même temps, que la Constitution a rendu les modernes invincibles.« (Latour, 2010b, p. 57). In turn, the modern critique's invincibility means that either position one takes, »the critique« will take the other one, as he shows in *Why has Critique run out of steam?* (2004). Depending on the argument opposed, the subject is either a determined machine or a powerful being of free-will and the object is either the source of determination or the receptacle of free-will:

»This is why you can be at once and without even sensing any contradiction (1) an antifetishist for everything you don't believe in — for the most part religion, popular culture, art, politics, and so on; (2) an unrepentant positivist for all the sciences you believe in — sociology, economics, conspiracy theory, genetics, evolutionary psychology, semiotics, just pick your preferred field of study; and (3) a perfectly healthy sturdy realist for what you really cherish—and of course it might be criticism itself, but also painting, bird-watching, Shakespeare, baboons, proteins, and so on.« (Latour, 2004, p. 241).

Applied to knowledge, this critique's position is also often used in a particularism (relativism) vs. universalism debate, that can also be found in the opposition between some philosophical and sociological paradigms

(Latour, 2010b)¹⁰. But more importantly — and this is Latour's point in *Why has critique run out of steam?* — those oppositions become dangerous when they are used within political rhetoric/justification and conspiracy theories. The impact of »fake news« is crucial here as they tend to equal knowledge to belief, which is for most critical theorists, scientists, sociologists and philosophers, a horrendous affront. In a few sentences, in a statement originating from let's say FoxNews, Trump's White House, or the AfD, the disparities between different modes of knowledge have been flattened out. Science becomes another form of belief, just another mode of producing knowledge, reduced to its leap of faith. Scientific knowledge is not taken for granted as matter of fact any more. It is part of interests, it is in the midst of controversies. The bifurcation of nature and the split in thinking knowledge production of course did not produce a Trump, or »fake news« as such, but did lead to a shift in how science conceived itself, its work and how it has been perceived. By erecting scientific knowledge as the true way to know the world, thus denying other modes of knowledge production — moreover a way that is not easily accessible to the profane public and that »should« remain separated from society — modern science has itself co-produced the situation it is in nowadays (Stengers & James, 2013). The management of the COVID-19 crisis, and mostly the communication about the crisis, show this situation quite clearly. On the one hand, some governments are dubbing science committees as truth speakers and policy makers. In that case, Science with a capital S is presented as quite homogeneous. On the other hand, the debate within scientific communities on the previsions, the effectiveness of treatments, the scientific-economic race to the vaccine show a heterogeneous, sometimes even competitive landscape. What does it say about science then? Mostly — and that is what Stengers also implies — it means that science is

10 It is also at the core of what Gilbert Simondon calls a disjunction between a theory of knowledge and a theory of action, still prevailing in the making of philosophy nowadays and leading us to understand thinking and knowing independently from doing (Simondon et al., 2016).

accountable and that the scientists should not be insulted by this accountability, but work with it and be responsible (Stengers & James, 2013).

4. The consequences in sociological thinking

The consequences for sociology in particular are as important as for philosophy and science (as already seen with Latour (2010b) and Stengers (2011)), maybe even more than in its opposition to the «civil society», as they are constitutive of sociology itself as a discipline. Indeed, the resulting split in thought described above deeply influenced the way sociology has been done since its establishment in academia, even since Auguste Comte's own positivist definition of sociology. However, within sociology, the controversy and the bifurcation of nature can be summed up under a debate «that never occurred» between the sociologists Émile Durkheim and Gabriel Tarde. To be clear, there was actually a debate between both sociologists, which took place at the École des Hautes Études Sociales in 1903. However, there is no extensive record of this meeting apart from some superficial mentions¹¹. Anyway, in the building of his constitutive mythology — a prequel to the ANT-verse — Latour did find a sort of theoretical filiation in Tarde's own work, which he opposed to Durkheim's (Latour, 2005). That found filiation gave him the idea of re-staging the 1903 debate, by creating a discussion based on quotations from Durkheim's and Tarde's actual works. This is why it is in actu a «debate that never occurred». Now, beyond a simple hero vs. villain staging, Latour's idea was, through this play, to propose a discussion coming back to the sociological roots of the debate — which he sees as constitutive for how sociology is performed nowadays — and the distinction between what he refers to as the *sociology of association* on the one hand and the *sociology of the social* on the other hand. The interesting character of this play is neither the history re-telling (again, this debate never actually occurred) nor the preference Latour has for

11 As indicated in the script of the play quoted in that part.

Tarde (Durkheim's success within sociology eclipsed Tarde's work for a long time) but the help it provides to understand how sociology has been shaped¹². Moreover, besides the presentation of the core ideas of both Tarde and Durkheim, the text does so in the mode of a »doing sociology«, a kind of podium discussion which can be so often found in conferences (Latour et al., 2007).

In this debate, three main disagreements are being discussed and all of them could be seen as consequences of a bifurcation of nature. The first one (which contains both others) concerns the place and role of sociology as a science. As introduced above, a bifurcated nature led to a clear territorialisation of scientific thought. For Durkheim, this is exactly what sociology should achieve. It should establish itself as an autonomous science apart from civil society on the one hand, but first and foremost apart from other disciplines on the other hand (mostly neighbouring ones like psychology). This clear distinction is only possible through a precise definition of its object, which for Durkheim are the social facts. Only then — and with the help of scientific method — can sociology produce objective knowledge about society (Durkheim, 1967). This is for Tarde already problematic as for him »not everything that members of a society do is sociological« (Latour et al., 2007, p. 3). He already defines the hybrid character of »social facts« that Latour would later evoke in *Nous n'avons jamais été modernes* (2010b). Even if the establishment of sociology as an independent science is for him quite understandable, the too narrow definition of its object of inquiry is what should be avoided. This is a central difference between both authors, because of the consequences the disagreement infused in how sociology is being made. By reducing sociology to the study of social facts and locating them outside individual lives, Durkheim does not only strategically position sociology in the academic landscape, but also

12 As already stated, the impact Tarde actually had on sociology is of course far more limited than Durkheim's. The goal is therefore not to grant Tarde more importance than he had back in his days (without negating it of course), but to illustrate the theoretical disparities, and thus the already existing controversy, between different sociologies.

denies the materiality of those »social facts« or the importance — even for sociology — of facts that are not defined as »social«. In one strike, Durkheim thus completes the bifurcation of nature, by separating the individual from society as well as separating nature from society, both being for Tarde highly problematic standpoints. The first part of this bifurcated sociology denies the singularities of each situations, reducing them to occurrences cancelled out by the collective as exteriority. This is where the Tardian laws of imitation are particularly important (Tarde, 1898, 1993). Rather than explaining the social through the social, they allow to think from those singularities, from the smallest differences. They shift completely the focus of sociology from a science looking at social facts to a science looking at the smallest difference, the monad, the association. Because it is also where the difference between both theories lie: in how they understand the individual and the group. For Durkheim, the whole is more than the sum of its parts. For Tarde, the group can never be more than the individual. Furthermore, Durkheim sees the individual and the group as fixed beings. Tarde sees them as movements : »Il n'y a, dans l'ontologie de Tarde, ni individu ni groupe, mais des individualisations et des regroupements.« (Latour, 2011, p. 27).

Without willing to resolve oppositions in an attempt to convince the »other one« and thus reduce that alleged opponent to a false dogma, the observation seems nonetheless clear in how sociology is shaped nowadays: in the multiplicity of paradigms, the bifurcation of nature is still present and very much so. The Durkheim–Tarde opposition sketched above, made a bit artificial by Latour's own story-retelling, even if quite polemical, remains valuable, producing completely different ways to think the social and do sociology. On the one hand, what Latour calls the sociology of the social (also including critical sociology): a sociology embracing Durkheim's and later on Weber's dualisms and their separation between nature and society as well as between the individual and society. On the other hand, the side Latour possibly attempted to incarnate through his work, a sociology of associations, which rejects the described dualisms, and tries to practice a Whiteheadian, Tardian sociology (Latour, 2005). The main difference between both positions can be illustrated with — but not reduced to — their understanding of »mat-

ter»: the first position sees a clear distinction between »matter« and the »social«, a distinction that shaped human and social sciences in opposition to natural sciences. Against that position, what is commonly (and vaguely as it is a very diverse field) referred to as »new materialism« rejects that distinction, by also questioning the separation of natural and social sciences (Kissmann & Van Loon, 2019b). This has important consequences on how to understand reality and thus asks the question of the formation of one's knowledge.

For Kissman and van Loon (2019b), who take Berger and Luckmann's sociology as one representative of dualist paradigms, the issue lies in the interchangeability of *logos* and *episteme*: »The reality that is socially constructed is not the full reality, but the house of truth of being in which the human being dwells. It is the reality that makes sense and is meaningful in contrast to the reality-as-such, which remains inaccessible.« (Kissmann & Van Loon, 2019b, p. 11). This means that human beings remain bound to the experience of a socially constructed reality and thus to the production of a knowledge necessarily limited to that very construction. From this perspective, even claiming that another construction of knowledge is possible, that another engagement with materiality, with direct experience does matter, would be discarded as itself being part of a social construction and never as part of reality-as-such. Therefore, and from that perspective again, the fate of new materialism is already pronounced: a cognitive failure unable to acknowledge that one's experience is socially constructed. Taking matter or non-human actors into the equation would only mean a human interpretation, a human transposition of human demands onto their actions, their demands. One cannot escape that social construction of reality just like for Kant, one cannot experience things-as-such. The snake bites its tail, nature and society remain apart and one remains stuck in anthropocentrism. However, as Kissman and van Loon show, the core problem is of an ontological nature. Their example of rice cooking quoted below is quite eloquent. Matter is not something lying there, inert, that humans/sociologists only *make sense of*:

»The rice is not demanding anything; it cannot prevent being overcooked or undercooked; it are those doing the cooking that decide how long the rice is to boil and thus how hard or soft it is going to be. However, even such defenders of the primacy of social cannot deny that the changing nature of the texture of rice is not the product of a social construction, but simply the effect of the duration of it being boiled. Learning how to cook well means that one learns from the rice; the rice tells us when and how its texture changes and when one is to stop boiling it. This is not some transfer of human language onto a physical process, but — in the words of Whitehead (1978) — a prehension. Hence it makes perfect sense — in a non-metaphorical way — to state that the rice demands. Being able to understand the demands of rice is referred to as cooking experience.« (Kissmann & Van Loon, 2019b, p. 16).

This example sums up beautifully how *prehension* as a process implies different modes of knowledge, of experience that are not automatically reduced to human perception-thought. It shows that matter indeed does matter and underline how knowledge and materiality do not constitute separated realms. In that case, reality becomes all that is, disrupting the dualism between a social construction of reality and reality-as-such. It shows that the separation between nature and society, the bifurcation of nature, which can be read as a separation between knowledge and materiality, an alienation of the former from the latter, is not a fatality. However, Kissmann and van Loon's account focuses on the German sociology of knowledge, which strongly uses Berger & Luckmann (1991) concepts. One reason for that »sparring partner« might well be that it is one of the paradigms within German sociology which is the most »vocal« about new materialisms and their »implementation« in sociological theory (through Latour's Actor-Network Theory for instance). Their chapter constitutes more or less a direct answer to critiques emanating from the sociology of knowledge. Nevertheless, it would be incorrect to consider that particular paradigm as representative for German sociology or even as representative for presumed opponents to new materialisms, which the editors understand,

through the plurality of perspectives they present in *Discussing New Materialism*. Still, and despite the clear disparities between both »sides« (sides reduced to a dichotomy which is in actu much more diverse) either on their ontologies or epistemologies, one can conclude from this discussion that the importance of materiality within sociology is apparently now of global understanding, even if the conclusions tend to differ (Keller, 2019; Schmidt, 2019). In other words, the presentation above was by no means a way to instigate or resolve a (still ongoing?) dispute some see as necessary, but rather to depict a quite superficial state-of-things. Even though different paradigms include materiality, they do not »work it« the same way. The main argument thus is not to show which one is right or wrong, but that there are differences in how they engage with them. Accordingly, reducing those multiple paradigms to one side or the other, even more when following Latour's own distinction mechanisms (wouldn't it be funny to quote Bourdieu here?), could appear as questionable. Am I not myself subscribing to that distinction, thus doing an »us vs. them« kind of thing?

5. The situation of knowledge

»The truth is out there.« (X-Files)

Is this an »us vs. them« scenario? I would argue that it is not the case. This is not an »us versus them«, a Tarde vs. Durkheim, a sociology of association vs. a sociology of the social. As explained at the beginning of this chapter, the main intent was to depict a sociological controversy concerned with how knowledge production has been shaped within sociology, but with roots going much further than an exclusive sociological discourse. This controversy is not meant as a ground for me to be the referee but rather to situate my own work — thus acknowledging its situatedness — and explain it. The formulation of the controversy »knowledge has been alienated from its materiality« supposes that another possible exists, not reduced to Reason, that there is a plurality of modes of knowledge production (Montebello, 2015b). But in turn, it

also supposes a situation of knowledge. Knowledge never exists *ex nihilo*. It is not an absolute that mortals can only imperfectly grasp, the true knowledge being *out there*, out of reach, in another universe, available only to some gods, philosophers and sociologists. Knowledge does not exist independently from us, hung over our heads, waiting to be looked up to by us, greedy academics writing PhD theses. And I know that this is already taking a side — *de facto* — but knowledge is situated. Or better said, knowledges (plural) are situated (Haraway, 1988). The production of knowledge — let's say for instance scientific knowledge — is always bound to the situation in which it is produced and transmitted. Not following a social construction, but interests. It partly depends on funding, reviewing, publishing. It is part of an agenda, being an institutional or a personal one. But it also depends on how the »objects« of research impose themselves to the researchers and manifest their »demands«. The claim for universal objectivity is always at best, a misunderstanding, at worst, a lie. One of the implications of this situation of knowledge is the fact that it is indeed in the middle of many — sometimes even competing — interests. Knowledge is *concerned* (ZfM Redaktion, 2019). Its production and transmission is therefore also a *matter of concern* (Latour, 2004). As shortly evoked above, it even becomes a question of power and domination. The making of the human subject within a bifurcated nature is mostly the making of a Western, white and heterosexual male subject.

Furthermore, the question of knowledge production also relies on the question of truth, of knowing something to be true, which is at the heart of Bruno Latour's research at least since *Laboratory Life* (Latour, 2012; Latour & Woolgar, 1986). As Latour explained in an interview for the French public radio France Culture echoing his *Enquête sur les modes d'existence*, truth certainly exists, but not universally, it is always subjected to the modes in which it is searched for (»Bruno Latour, Philosophe Des Modes d'existence,« 2019). Something that is »juridically« true is not necessarily scientifically true, or true in a religious

mode¹³. Truth does not mean the same thing depending on the modes in which it is produced. Moreover, the ways how knowledge is being produced to access that said truth, how it is being validated or refuted are also very different in each mode. Knowledge production in sociology is not the same than in art or in religion, or in politics. That, in turn, does not mean that each practices are the same and equal to each other, rather that they all are singular. Including modes of knowledge production that are not »intellectualised« means that one also needs to extend their understanding of knowledge beyond its reduction to a human activity.

Why is it that important? As I explained above, when the leader of the most powerful country in the world denies climate change, affirming that he does not believe in it, like he did in Davos in January 2020, reducing climate activists to »prophets of doom« or »fortune tellers«, one sees very clearly the limit of how scientific truth convinces people (Elliott & Wearden, 2020). How can something so undeniable and fatal as the current environmental crisis, which has been thoroughly documented, analysed, discussed and mostly agreed upon, can be that easily »refuted«, by simply attesting that they don't believe in it? And here I can only repeat myself: why is *that* so important? The incapacity of a rightfully baffled science to respond to this lack of faith in its methods to describe and explain the world, something that since the development of modern science has been more or less erected as an absolute, shows the situation of knowledge and the need to acknowledge it, pun intended. This opposition between »science« and »the public« — between scientific knowledge and »common sense« or »beliefs« — thus reaches in that case a dramatic point. And although it is something existing since the modern definition of science — as Stengers showed numerous times (Stengers, 2017; Stengers & James, 2013) — there is now a shift in power relations.

13 This is very clear when one looks at the debates concerning abortion. The truth claims from science, law and religion about the status of the embryo differ. They also can differ within the same modes.

»Does [knowledge] correspond above all to a reality which pre-exists and is exterior to it, or does it actively participate in constructing a reality while at the same time creating a truth with regard to this reality? And secondly, which stories are told, by whom, from which perspectives etc.?« (Pihet et al., 2017, p. 69).

Those questions are not innocent. They show that the construction of knowledge and truth are undeniably *matters of concern*, and academics, should address that issue, reflect on it and work with it. Quoting them is not innocent either, it already gives a hint, not only about where this work is going, but from where it comes. In her last book, Donna Haraway (2016), who already coined the term of *situated knowledges* (1988), goes further by indicating that indeed it matters which thoughts think thoughts and that one bears a certain responsibility/response-ability to defend this plurality of modes and resist against the hegemony of one mode over the other. It is the same goal Latour is also following, but with different means¹⁴. In that manner, Haraway's words do bear a certain gravity and importance: it matters which thoughts think thoughts. Working within a »paradigm« is certainly making a choice. Doing sociology is also making a choice. By quoting this author over that one, by giving credit to these theories rather than those, by invoking scientific objectiveness or subjective immersion, choices are made. Those choices matter. Which in turn does not mean that every choice bears equal importance. Sociology is not like any other science just as science practices are not practices just like any other. No practice is just like any other. The situatedness of knowledge does not mean an absolute relativism. Embodying this perspective does not mean that »anything goes«, like Paul Feyerabend (1983) would argue. Nevertheless, it gives the bifurcation of nature a political nature: the values of knowledge itself have bifurcated. If they only show one thing, it is how one, and with whom (humans and/or non-humans) one thinks and produces knowledge have

14 One critique of Haraway towards Latour is his very own way of dealing with this issue. For Haraway, Latour's own writing and vocabulary is very (too much even?) war-oriented (Haraway, 2016).

consequences and as scientists, as citizens, also bear responsibility in that matter («Isabelle Stengers, de La Science à La Sorcellerie,» 2020; Stengers, 2017).

6. Towards speculative fabulation?

To sum up, if I am willing — as proposed in the introduction — to question and investigate the experimental character of sociology, through a reflection about the inclusion of art practices and by attempting to put sound at the core of knowledge production, I am also making choices. Which does not mean that I negate or refuse the »paradigms that don't fit« and which does not mean that I already know where this is going. This uncertainty is what is central to this work: where does it lead me if I take knowledge materiality that seriously? How far can I go if I embrace new materialism fully within my work as a sociologist? A big »what if?« *en somme*. Because by stating that the bifurcation of nature is not an absolute but can be reconfigured, by taking the new materialisms seriously, the »how-to« drastically changes. In *Pandora's Hope*, Latour makes the following distinction between science and research, which sums up well this shift:

»While Science had certainty, coldness, aloofness, objectivity, distance, and necessity, Research appears to have all the opposite characteristics: it is uncertain; open-ended; immersed in many lowly problems of money, instruments, and know-how; unable to differentiate as yet between hot and cold, subjective and objective, human and nonhuman. If Science thrived by behaving as if it were totally disconnected from the collective, Research is best seen as a *collective experimentation* about what humans and nonhumans together are able to swallow or to withstand.« (Latour, 1999, p. 20)

This is the main drive behind the present work. An attempt to embrace this idea of »research« which Latour defines, to reinforce and diversify the experimental character of sociological practice, to let knowledge production become an encounter, a moment of prehension, rather than

an anthropocentric thought-perception, unilateral gathering of information. It matters which thoughts think thoughts, as seen with Haraway. By questioning how one produces knowledge in sociology, and by applying to that question the idea that sound and art practices might bring new leads, what happens then?

»Non seulement en suivant ces philosophies, le monde s'est repeuplé, mais en peuplant notre solitude et le monde mort des sciences, il s'est animé, enrichi, diversifié; il est devenu foisonnant, multiple, divers, non indifférent, communicable, participable, sympathisable. De nouvelles alliances sont possibles qui ne manifestent plus une parenté avec l'homme, mais une parenté de l'homme avec tous les autres êtres, distribuant au-delà de l'homme l'évidence d'une dignité inhumaine« (Montebello, 2015a, pp. 97, 98).

All is good and well, but »ces philosophies«, those philosophies, that will apparently »guide« this work, what are they? The broad category of new materialisms have already been encountered, which I will still retain. But to that, another precision might be added: the notion of speculation, which seems to be central to Whitehead's philosophy and its more recent developments through Isabelle Stengers and Didier Debaise, just to name a few¹⁵. Unlike what the label might indicate, speculative thinking in that sense is not an idealism disconnected from the real experience. It is quite the opposite, as Debaise and Stengers show: »Speculative thinking, as we seek to inherit it, is expressed for the first time, with the greatest accuracy, in Alfred North Whitehead's exhortation ›Philosophy can exclude nothing‹.«(Debaise & Stengers, 2017, p. 14). One of the main consequences of that thinking, of the ethical, moral obligation to exclude nothing, is that it takes into account, and makes central, the multiplicity of modes of existence, and consequently of modes of experience and production of knowledge. To put it differently, the philosopher, but one could extend this to the sociologist, cannot disqualify anything *a priori*. As the authors show, this is central to William James' *rad-*

15 The notion of speculation has gained visibility in the past few years, such that it became a »turn«, like the linguistic turn, or the spatial turn (Bryant et al., 2011).

ical empiricism as well. It can also be found at the core of Actor-Network Theory's principles, as described by Michel Callon (1986) or Bruno Latour (2005): one cannot define and posit *a priori* who is granted agency or not, define who is the subject, and who is the object. This is where the concept of speculation loses its vagueness and implies a commitment, the setting of constraints. One of them is to relate and »preserve what experience *makes important*« (Debaise & Stengers, 2017, p. 17). This is not meant in the sense of what is important to us, but important to the experience and the multiplicity of modes of existence it holds, humans and non-humans. Again, it matters what thoughts think thoughts, and upon that, those thoughts have consequences. »Making important« is a responsibility, an appeal to care. The importance of a situation, of an event, of experience, is that it *matters*, non-metaphorically.

Where to go, from there? That's the methods question, isn't it? To be granted research money, some standards are necessary, »a path to be followed«. A question asked indeed by Valérie Pihet in her conversation with Didier Debaise, Katrin Solhdju and Fabrizio Terranova about *Speculative Narration*. What is then the methodology of new materialism, or even speculative philosophy? Both Terranova and Solhdju bring decisive answers: »The problem today with methodology is that one thinks one can take it, shift it, and apply it elsewhere.« (Pihet et al., 2017, p. 76). This could appear as a way to discard the question by just stating, well, I don't do that here, I just make things up as I go. But what Solhdju then adds, using Whitehead's understanding of speculative philosophy and methods, takes away the doubt:

»Crucially, Whitehead defined speculative philosophy as a method. But for him, a former mathematician, the notion of method was not at all linked to the idea of application. A method is not a ready-made tool-box that might be transferred from one context to the other in order to gain insight and knowledge about some new (pre-existing) field of research. On the contrary, a method, for Whitehead, is more than anything else an act of creativity, a creation. Such creation (in mathematics), however, is never arbitrary; rather, its creation is only

possible with the respect to the precise construction of a well-defined situation of constraints.» (Pihet et al., 2017, pp. 76-77).

The methods then, are already there. The constraints the authors define are the ones already mentioned earlier and that ultimately link Whitehead's endeavour with William James' radical empiricism (James, 1976). To remind the core aspect of James' perspective: »To be radical, empiricism must not admit in its constructions any element that is not directly experienced, nor exclude from them any element that is directly experienced.« (James, 1976; quoted from Debaïse & Stengers, 2017, p. 15). The philosopher cannot exclude anything but also cannot bring in what is not part of the experience, or rather, as Debaïse and Stengers explain, cannot let an *a priori* judgement from outside the situation define it. This double constraint can be seen as what forms most of the speculative methodology. In the later parts of this work, one will see how they might appear along the way, not by limiting but rather expanding the possibles. This radical empiricist methodology brings two sets of consequences. On the one hand, an undeniable complexity in the processes of inquiry. Indeed, it amplifies the situation to a multiplicity of modes of existence that are not necessarily bound to human perspective and also refuses to consider a situation as extracted from anything else. Latour and Woolgar have already shown this empirically: the perfect and perfected laboratory situation is always already more (tainted?) and always part of the world (Latour & Woolgar, 1986). On the other hand, for Debaïse and Stengers, it implies a »response-ability« or responsibility, an accountability, also in the sense brought by Haraway in *Staying with the Trouble* (2016). The ideas and concepts one uses, the situation one intends to make »important«, all those have consequences on what one is looking at. In the case of the above controversy and the building of a *thinking-with sound*, the main idea is to propose a different way to do sociology, to include sound practices as aesthetic practices in the process of doing sociology. This idea might have consequences on the practices of research, but also on the discourses that are implied, or on sociology itself as a science. Following Stengers, Whitehead and Latour, I am not allowed to deny it. In that situation, not every claim indeed sup-

ports my thesis, as I have shown with the Tarde–Durkheim debate or the critiques coming from the sociology of knowledge, and the speculative standpoint is not to be right or wrong: Debaise and Stengers, evoking Deleuze's figure of the »idiot« propose a slowing down, a looking around. In that sense, the practices of »knowledge production« slowly become encounters, first and foremost. It is about intensifying possibles. In a nutshell, what speculative thinking in the sense of Whitehead produces, as well as its ventures as »new materialisms« within sociology, is not so much a theoretical frame than it is already a methodology, an attitude.

7. The necessity of a choice

One question still subsists. Why going that way? Why making the apparently conscious choice to experiment with sound and artistic practices in a sociological work? Why willing to challenge the modalities of knowledge production? My choice did not come out of simple personal interest to combine what I might consider my passion with my work, although there is definitely some truth to it. It is not about doing something fun, even if one might ask: why not bring a bit of joy and playfulness into sociological research? Disclaimer — there is already a lot of both. This choice comes out of a necessity. A necessity for me to continue to work with said passion, and a necessity in order to propose a sociology that engages with a world I am already embedded in and to deal with the consequences of the bifurcation of nature.

»Ever since the Enlightenment, Western philosophers have shown us a Nature that is grand and universal but also passive and mechanical. Nature was a backdrop and resource for the moral intentionality of Man, which could tame and master Nature. It was left to fabulists, including non-Western and non-civilizational storytellers, to remind us of the lively activities of all beings, human and not human.« (Tsing, 2017, p. vii).

What the anthropologist and philosopher Anna Tsing attempts to show in the introduction of her book, is that the way Western philosophies and sciences conceived knowledge since the Enlightenment — and partially still does — is based on progress. Progress is of course not inherently wrong but it is not an absolute quality either. It has histories, and therefore real and multiple developments. It is now an accepted fact amongst geologists and physicists that we entered the Anthropocene, attesting the disastrous impact of humanity on its habitat, an impact also partially coming from those histories of progress. Our mastering of Nature went so far that it changed the Earth for the worse, with no coming back. One slight precision though. Haraway notes it in *Staying with the Trouble* (2016): »our« is wrong. Indeed, not all humanity is equally responsible for that situation. In fact, relatively few are. That is why she prefers the term Capitalocene to Anthropocene. Histories of progress somehow collide with the history of capitalism (Boltanski & Chiapello, 2011).

Where Haraway and Tsing meet is in the attitude to have towards the world they live in. It is neither a resigned pessimism that it is over, no matter what, nor is it a wrong-placed nostalgia of simpler times. It is what Haraway calls the Chthulucene: becoming response-able, staying with the trouble, narrate other narrations, like Anna Tsing with the mushrooms, Vinciane Despret with the dead (Despret, 2015), or the collective *Dingdingdong* with those suffering from Huntington's disease (Debaise & Stengers, 2015). Tsing sees this attitude as a way to know the world without needing the (very patriarchal) histories of progress. The sociologist Benedikte Zitouni understands this definition as a new plane of problematisation, which intensifies the present, through the partial and local agencies, through the multiplicity of actors implicated, through the diversity of processes and practices at play (Zitouni, 2019). But it is also a very creative activity, a storytelling that is a »world-making«, which questions how and with whom those stories are told (Doucet et al., 2018). All of those formulations need new materialisms and radical empiricism, are already inscribed in them, as guidelines or inspirations, but none of them are reduced to a set of -isms. All are experimental works, within philosophy (Stengers, Debaise), anthropology

(Tsing), biology (Despret), sociology (Zitouni, Latour). And all of them also clearly state that they do not refute progress altogether. It is not an undoing. Rather, they speculate, ask about other possibles. It is a doing differently from within, with others (Haraway & Caeymaex, 2019).

»L'expérimentation opportuniste est la clé stratégique du Chthulucène. Elle est rendue possible par l'introduction de la sympoïese. Il s'agit d'une expérimentation qui défie les tendances et qui nous importe *parce que* nous agissons dans le corps même du monstre dont nous sommes, parce que nous sommes associés et introrélatés dans une toile de vie, de mort et de survie qui ne cesse d'être tissée. Il s'agit d'une expérimentation ouverte, extensible, qui demande à ce que son histoire et ses effets soient sans cesse relayés, racontés et touillés dans le présent épais et gluant qui est le nôtre. Il s'agit d'une expérimentation contaminée et contaminante qui trace les lignes de partage à travers la réhabilitation même et les alliances qui s'y sont nouées. Elles se dessineront à chaque fois, pour chaque réhabilitation, pour chaque reconquête. Le Chthulucène est bel et bien continuation incessante.« (Zitouni, 2019, pp. 110-111).

So here it is, the necessity, the choice, the attitude. How to co-exist and survive »in the trouble«? By embracing the plurality of knowledge modalities and experiment with them sociologically. By allowing re-engagements with others (humans and non-humans), by immersing in recompositions. It is an experimental re-enchantment of the world. Not because it was better before, or because it is a way to escape reality, but because it is where we're at, it is our reality. It should have become clear by now what the scope and intent of this work actually is: not only a thesis about sound, but through a *thinking-with sound*, also an engagement in research and a very personal reflection about sociology as a practice. I cannot seriously »do« sociology without asking those questions and reflecting on my own situation/situatedness.

»I wrote this book as an exercise in philosophy in the mode of art, trusting that it can be done, that it matters not only what we say or do, but *how* we say or do it.« (Sha, 2013, p. 249).