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A METAPHYSICAL METAMETAPHYSI- CAL SKEPTICISM?

**ESSAY REVIEW OF SCIENTIFIC ONTO-
LOGY. INTEGRATING NATURALIZED
METAPHYSICS AND VOLUNTARIST EPIS-
TEMOLOGY, BY ANJAN CHAKRAVARTTY,
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Essay Review of Scientific Ontology. Integrating naturalized metaphysics and voluntarist epistemology, by Anjan Chakravartty, Oxford University Press, 2017

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1 – The context of the book

In the analytical tradition, metaphysics history is broadly told like this: first, Carnap attempted to show that metaphysical discourse was meaningless. Then, Quine's critique of empiricist's dogma rehabilitated metaphysics, understood as the logical analysis of scientific discourse. Finally, Armstrong, Putnam, Kripke (among others) reintroduced a metaphysics aiming at describing objective reality (Maurin & Brinks 2005; Ladyman & Ross 2007).

The new motto is now: 'Talk about the talk about the universe is not talk about the universe' (Heil 2003). As sciences are also undeniably talking about the universe, it makes sense to associate the metaphysical and scientific endeavors. These endeavors should be 'continuous' (Paul 2012). If one starts from the assumption that scientific theories are firmly established, one can hope that grounding metaphysics on scientific theories would yield firmly established metaphysical assertions (Humphreys 2013).

As a consequence, two kinds of metaphysics should be distinguished: naturalized and speculative metaphysics. Because of its continuity with the sciences, the former is designed to be objective, certain, and consensual. The latter is subjective, uncertain, and conflictual: it remains the battlefield of arbitrary worldviews. Metaphysicians may hope again, provided they renounce to speculation. Farewell to *speculative metaphysics*, hail to *naturalized metaphysics*! The time of consensual metaphysics has come!

As you might have guessed — or as you already know — it is not quite so. The conflicts are far from being settled. It is quite the opposite. Old-fashioned debates among metaphysicians on the ultimate nature of reality, free will, substantialism vs. relationalism, nominalism vs. universalism, etc., are still around. Additional *meta-metaphysical debates* have recently

emerged, opposing anti-metaphysicians and metaphysicians (van Fraassen 2002), proponents of speculative metaphysics, and proponents of naturalized metaphysics, as well as proponents of various ways of conceiving naturalization.

This crisis of the naturalization project obviously raises the question of the value of this project: can it hold its promises? Is it doomed to fail? If yes, why? If not, what could be improved? These are the questions that set the background of Anjan's Chakravartty's latest book. *Scientific Ontology. Integrating naturalized metaphysics and voluntarist epistemology* (Hereafter abbreviated SO) could be understood as an attempt to draw the lessons of the persisting disagreements among metaphysicians.

The book has three (or four) parts. First, Chakravartty explains why he denies the possibility of clearly separating 1. science and metaphysics 2. naturalized and speculative metaphysics. Second, he offers two case studies of irreducibly antagonistic debates falling within the domain of naturalized metaphysics: the debate over the reality of dispositional properties and the debate regarding the structuralist interpretations of quantum mechanics. Third, Chakravartty criticizes perspectivism and articulates the tenets of his voluntarist epistemology. The 'coda' of the book deals with Sextus Empiricus.

Chakravartty's work is pleasing to read, very informative, and thought-provoking. A part of what makes its reading so enjoyable is that it does not bluntly expose a theory. It is an inquiry, starting with a general question, which leads to another question, which leads to another question, etc. until an ultimate point is reached. I will not try to narrate all the details of this journey: it would be a redundant, boring, and pale reproduction of a glittering intellectual dance. Instead, I will first reconstruct the structure of Chakravartty's argument, and then present an objection.

2 – Chakravartty's slippery slope problem

Chakravartty frames the problem of the delimitation of naturalized metaphysics as an instance of a more general problem, the slippery slope problem. Let us start by spelling out the premises of this general problem.

Ontology is consensually defined as 'the study of what there is,' of 'what things, what kinds of things, exist, and what those things or kinds of things are like.' According to Chakravartty, ontological commitments result from '*metaphysical inferences*' (from now on: MI). These inferences are dubbed 'metaphysical', not because of their form (which is not specified), but because their empirical premises are not sufficient to derive their conclusions: they bring into play *a priori* considerations (SO, 35). These *a priori* considerations belong to two kinds: presuppositions and values. *Presuppositions* have a cognitive content. They are the additional premises necessary to draw conclusions from empirical facts. They are 'functioning as a sort of launching pad' (MO, 71). *Theoretical values* intervene in the evaluation of MIs (SO, 71). The mechanism of such intervention has been brought out by Duhem (1906) and Quine (1951): since theoretical choices are empirically underdetermined, one needs to use theoretical virtues in order to determine which option to prefer.

Chakravartty seems to assume that MIs instantiate the following properties:

1. MI is an **inference**: it infers a proposition (the conclusion) from other propositions (the premises).
2. MI is **ampliative**: the premises and the conclusion do not have the same truthmakers.
3. MI is **iterative**: the conclusion of one MI can be the premise of another.
4. MI is **explanationist**: the truth of *p* should be inferred from the truth of *q* if the truth of *q* would explain the truth of *p* (Lipton 2004).

From these primitive features, it follows that:

5. MI is **non-exclusive**: since one single fact can have several explanations, explanationism entails that two MI starting with the same premises can result in opposite conclusions. In other words, the conclusion of an MI is factually underdetermined (Bryant *forthcoming*).
6. MI is **uncertain**: since the premise and the conclusion do not have the same truthmakers, the truth of the premises does not logically necessitate the truth of the conclusion. In other words, the premises could be true and the conclusion false. The uncertainty of MI also follows from the underdetermination of its conclusion.

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It is useful here to introduce some analytical tools. Four categories of relations between different MIs could be distinguished:

Dependence: the premises of an MI directly or indirectly produces the conclusion of another MI.

Divergence: the two MIs are directly or indirectly derived from the same premises.

Convergence: the two MIs are neither dependent nor divergent but have the same conclusion.

Parallelism: the two MIs are neither dependent, divergent, nor convergent.

It is clear that if ontological disagreements stem from inferential differences, this characterization of MI supports the distinction between two kinds of disagreements:

Horizontal disagreements: It occurs when people's contrary beliefs belong to the same inferential level, that is, when these contrary beliefs inferentially result from the same set of premises;

Vertical disagreements: It opposes people who are willing and people who refuse to make a new inferential step based on a set of beliefs.

For instance, the opposition between the substantialist and the structuralist interpretations of quantum entities is a horizontal disagreement, whereas the opposition between (moderate) empiricists and scientific realists is a vertical disagreement. Moderate empiricists accept the MI, which concludes from phenomenal consciousness to the existence of the objects of our perception, but do not accept the MI, which concludes inferences from the objects of our perception to unobservable objects (SO, 54).

Horizontal disagreements revolve around the right conclusion of an MI. Vertical disagreements revolve around the very reliability of such an MI. Therefore, horizontal disagreements presuppose vertical agreements: philosophers would not debate over the right ontological conclusion to draw from quantum mechanics if they did not believe in their ability to reach such conclusions. The vertical disagreements are the deepest since one side regards the other's endeavor as meaningless. The deepest disagreements are generally the less loud: when someone thinks that a question cannot be settled, she simply avoids attending certain conferences and reading certain papers. On the opposite, there is a common interest to make empty debates the loudest possible so that people forget about the question of its epistemic values (as well as its other values). The fiercest disagreements are not the deepest.

Chakravartty's is more interested in explaining vertical than horizontal disagreement (SO, 201). Therefore, in order to understand Chakravartty's problem, the dependence relation

between MIs is the most relevant one. Iterability enables the creation of metaphysical inferential sequences. An inferential sequence has a point zero — the premises from which everything else is derived, but which are not themselves derived of anything —, but potentially no endpoint. Such inferential sequence constitutes a strictly ordered set. This property enables Chakravartty to offer a metric: in such an ordered set of MIs, it is possible to compare the distance of two MI from point zero. Chakravartty calls this point zero ‘ground’ and this distance ‘the distance of metaphysical inference from the ground of empirical inquiry’ (SO, 84). According to Chakravartty, the point zero of the metaphysical inferential sequence is the phenomenal consciousness: we directly know what state of our mind there is. Correlatively, not using any MI amounts to being a phenomenalist (SO, 54).

A metaphysical inferential sequence instantiates three properties, essential to Chakravartty’s account. First, it is ‘continuous’ in the sense that there is no qualitative distinction between two successive MI since these cognitive processes belong to the same kind. The distinction between them is quantitative: it is a function of the number of MI separating them or of the number of MI separating each one of them from the ground. Second, the sequential character of MI entails the cumulativeness of the conclusions of all the MIs composing a given sequence. The longer the inferential sequence, the richer the ontology. Third, the sequential character of MI also entails the cumulativeness of the uncertainties of all the MIs composing a given sequence. As a consequence, metaphysical inferential sequences obey the following law: the informativity of the sequence is inversely proportional to its certainty. The further an MI is located in this sequence, the most informative and uncertain it is.

The association of this law and the continuity of the inferential process brings about a threat of a slippery slope (SO, 75, 82): one could start by accepting common sense realism and end up as a speculative metaphysician.

In order to avoid such a slippery slope, one must be able to decide where to stop. In Chakravartty’s term, one needs to decide where to draw the ‘ontological limit’ (SO, 16, 82, 84). That is, one must determine where is the point in the inferential sequence beyond which the addition of a new inference no longer makes it possible to reach conclusions that are sufficiently certain to count as knowledge. Borrowing from Bas van Fraassen’s (2002) terminology and from its interpretation by Paul Teller (2004), Chakravartty calls ‘stance’ the decision of drawing an ‘ontological limit’. A stance is Teller’s ‘epistemic policy’ applied to MIs. For example, an empiricist adopts the epistemic policy of rejection MIs from the observable to the unobservable. Therefore, an empiricist will regard any proposition concerning the unobservable as uncertain. Therefore, she will suspend her judgment whenever confronted with such a potential belief.

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We can now understand one of the main claims of the book: vertical ontological disagreement stems from a disagreement between stances. Indeed, if one refuses a MI, one should also refrain oneself from accepting any entities whose existence is only proven by this MI. In Chakravartty’s words:

‘Differences among philosophers and scientists regarding ontological commitments are a function of some of the epistemological commitments these people are wont to make.’ (SO, 45)

3 – Chakravartty’s naturalized metaphysics problem

Scientific ontology is understood as what science teaches us about ontology: there are atoms, quarks, mitochondria, *E Coli*, black holes, etc. *Naturalized metaphysics* is understood as the endeavor to draw an ontology from established scientific theories. In order to grasp Chakravartty’s conception of scientific ontology, let me introduce a distinction between two possible conceptions of scientific ontology.

Literalism: scientific ontology can be directly read off science.

Interpretivism: scientific ontology cannot directly be read off science. An additional interpretation is needed.

Correlatively, there are two ways of conceiving the method of naturalized metaphysics: literalist (for instance Quine) or interpretivist.

Chakravartty rejects the former and adopts the latter position. His first premise is a delimitation of what knowledge counts as scientific. The word ‘science’ ambiguously refers: sometimes it refers to scientific practices, sometimes it refers to scientific theories, and sometimes it refers at the same time to practices and theories. Therefore, a distinction should be drawn between ‘*science simpliciter*’, ‘*empirical-scientific investigation*’, — the practices — and ‘*scientific ontology*’. ‘Science’ properly understood refers to ‘*empirical-scientific investigation*’ (SO, 80).

The second premise is that ‘[s]cientific practice all by itself underdetermines scientific ontology’ (SO, 237). Therefore, according to Chakravartty, theoretical entities are not scientifically known.

The conclusion is that, without an interpretation, science reveals nothing about the world. Science requires philosophical discussions in order to support a given ontology: ‘[s]cientific ontology is metascientific’ (SO, 33). ‘Metascientific’ interpretation should then be conceived as

the cognitive process concluding what there is (*i.e.*, scientific theories) from the experimental practices. This metascientific interpretation is naturalized metaphysics's work.

In Chakravartty's framework, the naturalization of metaphysics program should be functionally construed as a possible solution to the slippery slope problem. In other words, naturalized metaphysics should be seen as a stance. It is 'intended to arrest one's fall at precisely the point at which one would begin to make inferences whose connections to scientific-empirical evidence have become so attenuated that they no longer are good bets for scientific ontology' (SO, 70). The scientific ontology should then be reinterpreted as the result of the application of the naturalized metaphysics stance.

According to this interpretation, the naturalized metaphysics program relies on three assumptions:

Assumption 1: the factual content of scientific theories is a safe bet for knowledge.

Assumption 2: the factual content of scientific theories does not exhaust all possible knowledge.

Assumption 3: it is possible to draw a line between naturalized and speculative metaphysics.

The demarcation between naturalized and speculative metaphysics should be cashed out in terms of the differences between their inferential support. The distinction between these inferential supports relies on the premises of these inferences. The naturalized metaphysics epistemic policy prescribes to trust metaphysical inferences whose premises are scientific. And it proscribes to trust MI whose premises are located further down the slippery slope. In other words, one should trust MIs that are sufficiently close to the scientific content to be reliable and reject MIs that are too distant. Thus, the 'norm of naturalized metaphysics' (SO, 66) can be formulated as follows:

The principle that scientific ontology is properly delimited by metaphysical inferences and propositions that are sufficiently informed by or sensitive to scientific-empirical investigations as to provide or constitute ontological knowledge relating to the sciences (SO, 67).

In order to know when to implement this rule, one must know which attitude to adopt regarding a given inference. This decision requires knowing when an inference is sufficiently close or dangerously distant from the scientific content. But this raises, once again, the slippery slope problem. Therefore, the naturalized metaphysics is an incomplete solution. It is too general. As Chakravartty puts it: 'A shared principle of demarcation does not by itself entail a shared conception of where to draw the line' (SO, 66). One needs to know first how to decide which inferences are too empirically distant from

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experience to be reliable. Therefore, the possibility to apply the norms of naturalized metaphysics relies on the possibility to give a solution to the slippery slope problem.

4 – Chakravartty's solution to the slippery slope problem

Chakravartty holds that vertical ontological disagreements result from diverging stances. What are the parameters determining the adoption of a given stance, *i.e.*, to accept or reject a given kind of MI?

According to Chakravartty, each MI is associated with a certain level of 'epistemic risk,' defined as 'a feature of propositions (and the inferences generating them, as conclusions) that determines how confidently one is able to judge whether they are true or false; that is, whether and to what extent they are conducive to knowledge' (SO, 84). Therefore, the decision to adopt a given stance depends on the responses given to the two following questions:

Measurement of the epistemic risk (MER): What is the epistemic risk associated with a given kind of MI?

Determination of the epistemological threshold (DET): Beyond which level of epistemic risk the conclusion of an MI does not count anymore as a piece of knowledge?

The level of epistemic risk is inversely proportional to two parameters: 'explanatory power' and 'empirical vulnerability'. Therefore, MER imply the two subsequent questions:

Measurement of the explanatory power (MER-EP): What is the explanatory power of the hypotheses justified by a given MI?

Measurement of the empirical vulnerability (MER-EV): What is the empirical vulnerability of the hypotheses justified by a given MI?

MER-EP is a well-known epistemic mechanism in the philosophy of science. It depends on the theoretical values (simplicity, generality, precision, fertility, coherence) implemented by the explanatory hypothesis involves by a given MI.

Regarding 'Empirical vulnerability', 'which concerns how susceptible a proposition is to empirical testing' (SO, 85), I must confess my puzzlement. As a follower of Peirce, I believe that the creation of a new term of art is a decision of consequence. When the expression is redundant with an already existing expression, it gives the impression that there is a difference where there is actually none, that something new is said where only well-known ideas are rehearsed, thus creating a 'confusion of ideas'. I agree with Michael

Strevens (2018) to say that this ‘empirical vulnerability’ is nothing more than the old fashioned ‘testability’. In his response, Chakravartty explains that the rationale for this terminological decision is to avoid the presupposition that testability is necessarily intertwined with explanatory power (Chakravartty 2018). This seems true. If empirical testing amounts to check how a hypothesis is confirmed or disconfirmed by empirical evidence, any test should involve some an MI of the purported evidence, and thus explanatory powers. The susceptibility of testing is, therefore, the susceptibility of having explanatory power. However, it is difficult to understand why it is not also the case of ‘empirical vulnerability’. But let put these quibbles aside for now since they are not central.

The identification of the parameters determining the adoption of a given stance raises a normative as well as an explanatory question. First: what stance is epistemically prescribed? When are MI reliable, and when are they not? Second: from the perspective of the agents, are decisions to stop at some point down the slippery slope, *i.e.*, stances, arbitrary? What leads a virtuous epistemic agent, *i.e.* an agent sensitive only to epistemic goals and reasons, to adopt one stance rather than another?

As the two parameters determining a stance adoption are both normatively and explanatorily relevant, six questions should be distinguished:

Normative MER-EP: How to evaluate the explanatory power of an MI?

Normative MER-EV: How evaluate the empirical vulnerability of an MI?

Normative DET: Where the epistemological threshold should be located?

Explanative MER-EP: How do epistemic agents evaluate the explanatory power of an MI.

Explanative MER-EV: How do epistemic agents evaluate the empirical vulnerability of an MI.

Explanative DET: How do epistemic agents determine their epistemological threshold?

Anjan Chakravartty does not explicitly address the normative questions. For this reason, he focuses almost exclusively on the explanatory questions.

This choice might result from two terminological decisions. In *Scientific Ontology*, ‘stance’ does not only refer to an epistemic policy (Teller 2005; Boucher 2014) but to a *subjectively motivated epistemic policy*. Correlatively, ‘epistemic voluntarism’ claims that the adoption of a policy stems from a choice whose value cannot be demonstratively established. Because this use of stance is at the same time descriptive and explanative, it foreshadows the possibility of

alternative questions, namely, of the normative investigation. This blind spot stems from another terminological choice. As Chakravartty decides to indifferently call ‘metaphysical inference’ any ampliative inference, all these inferences — inductions, abduction, inferences to the best explanation — seem to belong to the same kind. Therefore, this designation makes it difficult to see why one should prefer an MI over another MI since the relevant differences between different kinds of inferences are overshadowed.

However, Chakravartty presents two dilemmas helping the reader to grasp a rationale for not taking the possibility of a normative account of stances seriously. Regarding the normative DET, Chakravartty follows van Fraassen (2002), who follows James (1896). In ‘The Will to Believe’, James notices that the imperative prescribing the maximization of knowledge is ambiguous. The goal of gaining knowledge is, at the same time, the goal of maximizing the number of our true beliefs and the goal of minimizing the number of our mistakes. The problem is that in order to minimize the number of our mistakes, we should renounce to maximize our true beliefs, since we should suspend our judgment as soon as there is a slight doubt concerning its truth. On the opposite, to maximize our true beliefs, we should not be so cautious and accept many dubious beliefs. This dilemma easily translates to the case of MI. Because of the explanatory nature of MI, gaining ontological knowledge provides an understanding of the world. One must, therefore, choose between having certain beliefs and obtaining the intellectual pleasure of understanding. There seem to be no principled way to solve such a dilemma.

Moreover, Chakravartty holds that MER-EP is necessarily subjective. As he himself notices (SO, 229), his argument is very close to Kuhn (1977)’s. Kuhn introduces the following dilemma: since there are several theoretical virtues, and since two competing theories can instantiate different virtues, one needs not only to decide which theoretical properties to count as theoretical virtues but also to decide how to hierarchize these values. For example, one can favor the simplicity of an explanation over its fecundity, or the opposite. It is easy to see that there can be a whole bunch of such dilemmas.

To summarize, in order to normatively justify the adoption of an epistemic stance, one needs to solve James and Kuhn’s dilemmas. In order to solve these dilemmas, one needs to make value choices. Therefore, to rationally prescribe a stance, one would have to rationally prescribe the endorsement of values. As Chakravartty thinks that such rational endorsement is not possible, he also rejects the project of deontologically prescribing stances.

Does that mean that epistemic agents are unable to adopt stances? In the same way that doubt leads to the suspension of judgment, axiological indecision should lead to the

suspension of stance endorsement. But it is not quite so. Since people subscribe to different ontologies, and since ontology is the result of a MI and since the use of MIs is prescribed or proscribed by stances, everyone adopts a stance. This indicates that, as a matter of fact, people make value choices (SO, 220).

Let us not turn towards Chakravartty's solution to the explanatory problem of stance adoption. The intervention of value judgments is necessary to solve both James' and Kuhn's dilemmas. How to explain value judgments? They cannot be normatively determined. Therefore, they are subjective. Then, borrowing from James, Chakravartty calls 'temperament' the unexplainable fact that individuals have value preferences causing stance choices.

To make this account clearer, it would have been necessary to distinguish more explicitly between James' and Kuhn's dilemmas, and correlatively between the kind of values which help to solve the former and those needed to solve the latter. To solve James's dilemma, one must choose between cautiousness and boldness, conservation and revolution. To solve Kuhn's dilemma, one must choose between a taste for simplicity, for precision, for amplitude, etc. James' values are rather moral and related to action. Kuhn's values are rather aesthetic and related to cognitive experience.

If there are two kinds of subjective values, there should be two different subjective relations to the adoption of these values. Now, the notion of temperament refers rather to moral values. Therefore, temperament should not be related to aesthetic values. For analytical purposes, we could call 'sensibility' the relation to Kuhnian values. And 'personality' the sum of temperament and sensibility.

This distinction is important for two reasons. First, it brings out theoretical possibilities that are overshadowed in Chakravartty's account. There is no correlation between the subjectivity or the objectivity of the two kinds of values. There could be subjective Kuhnian values and objective Jamesian values, or the opposite. Second, and more importantly, without this distinction, Chakravartty's account is either incoherent or dramatically confusing. Following van Fraassen, he contends that the only rational norm is pragmatic coherence. But if only the temperament and Jamesian values are taken into account, there is no plurality of subjective elements, and without a plurality of subjective elements, there is nothing that needs to be pragmatically coherent. And if this plurality is internal to the 'temperament', this term is a catch-all and blurry notion. For this reason, from now on, I will substitute my terminology to Chakravartty's.

Sensibility is the fact that people solve Kuhn's dilemma, temperament the fact that they solve James's dilemma, the interaction of temperament and sensibility with a kind

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of MI brings about a given stance. All this process can only be subjective. Does it entail that rational deliberation and discussion — philosophy — has no say in the determination of stances? Not so fast! As temperament determines which level of certainty one aims at, and as sensibility determines how one estimates the level of certainty of a given MI, and as stances result from these two determinations, incoherencies are possible. One can fail to endorse an MI whose certainty passes the epistemological threshold, or inversely. Therefore, there can be rational and irrational stances. And the adoption of a stance can be rationally discussed (once temperament and sensibility are made explicit). One can reflexively come to change one's stance.

This conception of rationality is pragmatic, conditional, and permissive. It is pragmatic since the function of reason is to motivate a decision, namely, the decision to adopt a stance. In order to do so, one must deliberate so that to find the right means to reach one's goal. It is conditional since the determination of the means and of the goal is subjectively given. In the case at hand, the goal is error avoidance or information increase; the means is uncertainty measurement. As a consequence, it is not possible to rationally prescribe an attitude: different goals associated with the same uncertainty estimation, or the same goals associated with different levels of uncertainty, can rationally justify different stances. It is rationally possible to proscribe, but not to prescribe certain stances. This is why Chakravartty calls 'permissive' this account of the function of reason.

5 – Chakravartty's solution to the naturalized metaphysics's problem

Let us now turn to the consequence of the voluntarist epistemology for the problem of naturalized metaphysics. Since the naturalization project aims at producing a metaphysics which is almost as certain as science, it should indicate where to locate the epistemological threshold between reliable and unreliable metaphysics. But as Chakravartty holds that it is in general impossible to rationally justify such a frontier, it is impossible to say whether a given piece of metaphysics is too speculative or not. Therefore, the project suffers from a 'debilitating vagueness' (SO, 71). Therefore, voluntarism implies a skeptical response to the problem of naturalized metaphysics: one can define it, but not recognize it.

On its positive side, the voluntarist epistemology implies that there will be several ways of conceiving and practicing naturalized metaphysics. If the scientific content reduces to experimental practices and if the MI that these practices ground are reliable, any scientific realist should count

scientific theories as naturalized metaphysics. If one believes that MI in general are reliable, even Lewis's *On Possible Worlds* could count as naturalized metaphysics (SO, 246).

6 – An objection

To sum up, the book's main claim is in its subtitle: 'integrating naturalized metaphysics and voluntarist epistemology'. The idea is that ontological disagreement (i.e., disagreement about what there is in the world) should be understood along with the voluntarist epistemology, that is, the claim that our beliefs are the results of epistemic policies subjectively chosen on the basis of one's values. Taking inspiration from James (but one could find the same idea in Fichte or in Nietzsche), quoted at the very beginning of the book, Chakravartty then claims that metaphysical worldviews ultimately result from philosophers' temperaments. In a nutshell: temperament causes stances adoption, which in turn causes ontological beliefs.

If Chakravartty is right, the lesson to be drawn is quite radical: there is no principled frontier between speculative metaphysics and naturalized metaphysics. The naturalization project was bound to be a failure. Any attempt to rationally solve disagreements is bound to failure. Our subjective a priori are unsurmountable obstacles to any consensus. Therefore, it seems that we are back to the positivist starting point: empiricism vs. metaphysics taken as a whole. If one cannot resist the temptation to build a metaphysical theory, she should do so as a form of artistic worldmaking (with the additional constraint of coherence).

This absence of demarcation has broad consequences, for Chakravartty conceives the metaphysical enterprise in a spectacularly extensive way: not only it comprises classical metaphysical entities, such as possible worlds or dispositional properties, but also the philosophical discussions about scientific theoretical entities. Not only it comprises the question of the existence of theoretical entities as discussed by philosophers of science, but also the question of the existence of these entities as discussed by scientists. Therefore, according to Chakravartty, the scientific realism debate is a metaphysical debate as well as the interpretation of the CERN experiment on the Higgs Boson. And the assertion of the existence of Covid19 is metaphysical. And therefore, the skeptical (or relativistic or deflationist or subjectivists) conclusions of his book apply to the philosophy of science as well as to scientific theories.

Is the case for such a radical position compelling? Although I enjoyed a lot reading the book, and was taken by the dynamic of the argumentation, I could not shake the impression that the theory it develops is self-defeating: *Scientific Ontology* develops a metaphysical theory proving the essential

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unreliability of metaphysical theories.

Scientific Ontology presents many signs of skepticism. First, the book supports a skeptical claim, namely impossibility to know where to draw the line between naturalized and speculative metaphysics (SO, 89). Moreover, the permissive conception of rationality entails that it is impossible to prove anything: we should therefore renounce to justified beliefs (SO, 229-234). Finally, the two case studies, central in the book, strictly apply Pyrrhonian argumentative guidelines: they present symmetrical argumentations pro and contra two contradictory positions, aiming at producing an 'equal strength' state in the readers' minds (SO, 243). Following Berkeley, Chakravartty holds that the only thing that we know for sure are the states of our minds, and all the rest is open to interpretation (to paraphrase Jim Jeffreys) (SO, 54). According to *Scientific ontology*, metaphysics postulates the existence of entities on the basis of their explanatory power. *Scientific ontology* postulates stances and temperaments on the basis of their explanatory powers. In his discussion of the sociologist deflation of metaphysical questions, Chakravartty claims that Kuhnian paradigms are theoretical entities — thus metaphysical entities — since they are explanative and unobservable. I can find no reason why Chakravartty's temperaments should be regarded differently.

Moreover, as we have seen, temperaments are located at the ultimate point of an explanatory regress. To postulate the existence of self-explanative entities is a classical metaphysical move. The main argument for this entity could be formulated like this: 'beliefs are adopted because of stances, stances are adopted because of values, values are adopted because of temperaments, and temperaments are causes without causes'.

Metaphysical postulates produce explanatory problems: additional metaphysical postulates are then needed to provide solutions. In order to reconcile their conception of quantum mechanics with the existence of causal relations, structuralists must defend the existence of either internal relational properties (Esfeld 2009) or of abstract causation (French 2014). Similarly, in order to reconcile his psychologist conception of ontological choice with the possibility of rational discussions, Chakravartty needs to idiosyncratically redefine the power of reason. A strange claim then leads to an even stranger claim.

Chakravartty could probably respond here that temperaments are observable and that, therefore, the 'empirical vulnerability' of his hypothesis is very high. Therefore, his theory is not a metaphysical, but a scientific theory. However, according to *Scientific Ontology* asserting observables already counts as a metaphysical claim. Anyways, the properties that the word 'temperament' designates in Chakravartty's vocabulary (desires, aptitude to deal with risk...) are not directly

observable, when these properties are instantiated by other minds. And those instantiated by my own mind might not be introspectively accessible (Bryant *forthcoming*). Moreover, the claim that temperaments are observable, since they are familiar entities, would be an equivocation. Chakravartty's temperament is functionally defined as that entity which explains stances, which in turn explain ontological differences. Therefore, the 'temperaments' needed by his theory works are not the 'temperaments' of our everyday life. Michael Strevens (2018) has objected that Chakravartty's theory predicts that instrumentalists lack courage and the scientific realists are brave. But this is obviously false. In his response to Strevens's critique, Chakravartty (2018) has himself insisted that everyday temperament and stance's temperament should be distinguished.

The liar paradox is a recurrent conundrum of skeptical positions. To avoid this self-defeating charge, Chakravartty could repudiate the claim that his position is skeptical. After all, he contends that there is knowledge: the stances determine what one regards as knowledge. But as stances depend on the epistemic agents' values, such conception of knowledge is relativistic. For instance, according to this analysis, it is impossible to say whether the sentence 'high energy physicists know that the Higgs Boson exists' is true or false. This sentence can be true for a scientific realist and false for an empiricist. Its truth value is perspective dependent (Kusch 2019; Baghranian 2019).

However, Chakravartty denies being a relativist. To be fair to him, I shall quote his text at length:

I expect that some readers will be worried about even the possibility of pluralism regarding ontology, but lest anyone be concerned unnecessarily, it is worth pointing out that the kind of variance in ontologies that such a pluralism would allow is not one according to which the holders of different stances are licensed to hold mutually contradictory beliefs regarding matters of putative fact. This is precisely the result feared by those who object to epistemic relativism, in which one person asserts a proposition, P, another asserts not-P, and there are no grounds even in principle on which to conclude that either is mistaken. The possible pluralism licensed here in connection with stances is not relativistic in this way. Where someone adopting the metaphysical stance may be tempted to affirm certain propositions regarding unobservable objects, events, processes, and properties, the holder of the empiricist stance does not deny such claims. Rather, the empiricist simply has no beliefs at all concerning such propositions. Where a certain kind of scientific realist might affirm the existence of quarks, the empiricist does not deny their existence but simply remains agnostic about them. In this way, the latter's scientific ontology may be a subset of the former's, and

this should assuage much of whatever concern there may be regarding the nature of rationality in this context, since there is no question of sanctioning contradictions. (SO, 50)

The idea is that epistemic voluntarism does not allow situations where it could be at the same time true that Higgs Boson exists and does not exist. Indeed, suspending one's belief regarding a proposition simply means that we do not know whether it is true or false. So Chakravartty's position does not entail first-order truth-value relativism. However, as knowledge ascriptions are also proposition, the principle of contradiction should not hold in the case of epistemological propositions. Epistemic voluntarism entails a second-order truth-value relativism.

Another possible solution to the self-defeating problem is to construe Chakravartty's position as deflationary. A position regarding a debate is deflationary when it holds that the enunciations constitutive of this debate do not have truth values at all: therefore, there are no real contradictions between propositions. Contrary to appearances, arguments concerning the naturalization of metaphysics only express subjective values. So, a large part of the debate should be replaced by the exposition of subjective axiologies (Lewis 2018; Chakravartty 2018). However, as Chakravartty himself notes, deflationary position must posit an explanatory basis (SO, 42-3). As this postulation is metaphysical, pragmatic contradiction looms again.

The last hypothesis that I could come up with to solve the self-contradiction problem is radical subjectivism: subjectivism ascribed not only to the objects of the book, but also ascribed to its author himself. Chakravartty subjectively holds that any metaphysical choice is subjective. Such a position would be perfectly coherent. It is the Pyrrhonian attitude that Chakravartty favors. But *Scientific Ontology* should then be read as a beautiful piece of conceptual poetry.

RÉFÉRENCES

- BAGHRAMIAN, Maria. 2019. The Virtues of Relativism. *Aristotelian Society Supplementary Volume* 93(1): 247-270. <https://doi.org/10.1093/arisup/akzo13>
- BOUCHER, Sandy. 2014. What is a philosophical stance? Paradigms, policies and perspectives? *Synthese* 191(10): 2315-2332. <https://doi.org/10.1007/s11229-014-0400-y>
- BRYANT, Amanda. *Forthcoming*. A thousand flowers on the road to epistemic anarchy. Comments on Chakravartty's *Scientific Ontology*. *Dialogue*.
- CHAKRAVARTTY, Anjan. 2017. *Scientific Ontology*. Integrating naturalized metaphysics and voluntarist

epistemology. Oxford: Oxford University Press.
<https://doi.org/10.1093/oso/9780190651459.001.0001>
 CHAKRAVARTTY, Anjan. 2018. Feeling in Guts and Bones. Reply to Lewis, Magnus and Strevens. *Metascience* 27(3) : 371-378.
<https://doi.org/10.1007/s11016-018-0341-z>
 DUHEM, Pierre. 1906. *La théorie physique. Son objet, sa structure*. Paris: Chevalier & Rivière Éditeurs.
 ESFELD, Michael. 2009. The Modal Nature of Structures in Ontic Structural Realism. *International Studies in the Philosophy of Science* 23(2): 179-194.
<https://doi.org/10.1080/02698590903006917>
 FRENCH, Steven. 2014. The Structure of the World: Metaphysics and Representation. Oxford: Oxford University Press.
<https://doi.org/10.1093/acprof:oso/9780199684847.001.0001>
 HEIL, John. 2003. *From an Ontological Point of View*. Oxford: Oxford University Press.
<https://doi.org/10.1093/0199259747.001.0001>
 HUMPHREYS, Paul. 2013. Scientific Ontology and Speculative Ontology. In D. Ross, J. Ladyman, H. Kincaid (eds), *Scientific Metaphysics*, Oxford: Oxford University Press, p. 51-78
<https://doi.org/10.1093/acprof:oso/9780199696499.003.0003>
 JAMES, William. 1896. The will to Believe. *The New World*, 5: 327-347.
 KUHN, Samuel. 1977. Objectivity, Value Judgment and Theory Choice. In *The Essential Tension. Selected Studies in Scientific Tradition and Change*, Chicago: Chicago University Press, p. 320-339.
<https://doi.org/10.7208/chicago/9780226217239.001.0001>
 KUSCH, Martin. 2019. Relativist Stances. *Virtues and Vices*.

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<https://doi.org/10.1093/arisup/akz007>
 QUINE, Willard. 1951. Two Dogmas of Empiricism. Reprinted in *From a Logical Point of View*, Cambridge, MA: Harvard University Press, p. 20-46
<https://doi.org/10.2307/j.ctv1c5cx5c.7>
 LADYMAN, James & ROSS, Don. 2007. *Every Thing Must Go*. Oxford: Oxford University Press.
<https://doi.org/10.1093/acprof:oso/9780199276196.001.0001>
 LEWIS, David. 1986. *On the Plurality of Worlds*. Oxford: Oxford University Press.
 LEWIS, Peter J. 2018. Inferring Particles. *Metascience* 27(3) : 357-364
<https://doi.org/10.1007/s11016-018-0340-0>
 LIPTON, Peter. 2004. *Inference to the Best Explanation*. London: Routledge.
<https://doi.org/10.4324/9780203470855>
 MAURIN, Anna-Sophia & BRINKS, Ingar. 2005. Revisionary Metaphysics. An interview with David Armstrong. *Theoria* 71(1): 3-19.
<https://doi.org/10.1111/j.1755-2567.2005.tb01001.x>
 PAUL, Laurie. 2012. Metaphysics as Modelling: The Handmaiden's Tale. *Philosophical Studies* 160(1): 1-29.
<https://doi.org/10.1007/s11098-012-9906-7>
 STREVEN, Michael. 2018. Explanation and Reality. Comments on Chakravartty. *Metascience*, 27(3): 371-378.
<https://doi.org/10.1007/s11016-018-0343-x>
 TELLER, Paul. 2018. Discussion. What is a Stance. *Philosophical Studies* 121(2): 159-170.
<https://doi.org/10.1007/s11098-004-5489-2>
 VAN FRAASSEN, Bas C. 2002. *The Empirical Stance*. Yale: Yale University Press.

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