Naturalism and the Task of Philosophy[1]

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Abstract:
There is a plethora of naturalisms in contemporary philosophy. Instead of sorting out diverse past or present variants of this philosophical movement this article aims to define in three relatively simple points a version of naturalism that I consider as the most auspicious way for philosophy to remain a relevant and significant force in the domain of knowledge dominated by contemporary science. The tripartite definition of naturalism that is presented deliberately does not claim to be original, but seeks to capture in a concise and clear way the common core of the naturalistic mind frame. The point of the article is to point out the need to reduce internal metaphilosophical disputes within the naturalistic movement in favor of a greater emphasis on the concrete participation of philosophy in current scientific research. The claim is that the real (not only nominal) realization of the naturalistic turn in philosophy necessarily presupposes a change in the process of the education of future philosophers.

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Many recent articles on naturalism open with a statement about its dominant influence in contemporary (especially theoretical) philosophy, but then frankly admit[2] that it is not at all an easy task to come up with a satisfactory definition of naturalism.[3] Some authors take this state of affairs as a chal-

1 This work was supported by the Slovak Research and Development Agency under Contract No. APVV-18-0178.

2 See, for example, Ritchie, J., *Understanding Naturalism*. Stocksfield, Acumen 2008, p. 1.

3 Frequent use of "isms" is one of the characteristic features of philosophical discourse. The more heterogeneous and inconsistent an academic discipline is in terms of basic beliefs and methods of thinking, the greater the need to create shortcuts to make it easier to navigate the discussions. However, as is well known, this way of creating philosophical terminology also has its disadvantages, especially when it comes to philosophical terms denoting not only a specific aspect, but overall positions (worldviews) that include many aspects: ontological, epistemo-

lenge and seek to classify and clarify different types of naturalism. The phrases that tend to be coined in this way by adding specific adjectives to the term "naturalism" provide some light, but also further emphasize the breadth and heterogeneity of the naturalistic movement in contemporary philosophical thinking.[4] On the other side of the aisle, authors who are inclined to be critical of the naturalistic way of thinking do not hesitate – which is quite understandable – to make this vagueness or ambiguity a starting point or even a significant part of their critique of the naturalistic approach. Both strategies are to some extent legitimate and may be beneficial (depending on the specific implementation), but in this article I will not be inspired by either of them. Although the content of this work will be a certain defense of naturalism and a certain critique of naturalism, which, of course, assumes that we know exactly what is semantically hidden by the term, I will not aspire to solve the problem of definitional ambiguity through attempts at detailed interpretation and classification, nor will I use the mentioned ambiguity as an easy target for criticism.

As is clear from the title of this article, I will primarily be concerned with answering the question of what the function of philosophy is if we lean towards the side of its naturalistic understanding. Since I am not so much concerned with a systematic examination of the historical phenomenon of philosophical naturalism but rather with the problem of how to do philosophy today in a way that makes sense, I will begin with a brief introduction to the version of naturalism that seems to me to be the most interesting and promising.

The aim of this first part of the article is not to be original in defining naturalism. Just the opposite. As will be seen, the features by which I will define naturalism can be easily found in several past or present authors. What we need is not the creation of ever new notions of naturalism, but rather the establishment of some functional definition that can serve as a starting point

logical, and ethical. Since a resolute solution to this problem, consisting of rejecting "isms" and focusing exclusively on specific philosophical claims and arguments, is difficult to implement for practical reasons, we have to maneuver cautiously with the compass of these 'isms' in the hope that the semantic magnetic pole is not moving too fast and chaotically. It is our constant task to evaluate whether a given "ism" is functional or is just a label on a bottle, into which a different content is poured at any moment. We should heed the wise warning: "Never think that you have got a philosopher sorted out just because you can say what 'ism' he represents". See Craig, E., *Philosophy: A Very Short Introduction.* Oxford, Oxford University Press 2002, p. 61.

4 Among the various forms and shades of naturalism, I will mention at least those that have repeatedly appeared in recent literature (some readers would probably be able to add others): metaphysical naturalism, methodological naturalism, metaphilosophical naturalism, humanistic naturalism, non-reductive naturalism, normative naturalism, liberal naturalism, pragmatic naturalism, cultural naturalism, poetic naturalism, and ethical naturalism.

for working on specific problems. The goal of a philosopher who understands herself as a naturalist should not be to spend her time in metaphilosophical debates about what naturalism really is or is not, but to contribute to a unified account of the world by showing how different aspects or parts of the world can be understood as part of a basic naturalistic image.

Throughout the article I will limit myself to theoretical philosophy (metaphysics, epistemology, philosophy of science, philosophy of mind), although naturalism is, of course, an important player in the field of practical philosophy (ethics, social philosophy) as well. This narrowing is motivated by my personal primary focus, but even more so by my belief that there are some entirely new issues in the field of practical philosophy that deserve separate and more intense attention than I could afford to give them here.

In the second part of the article, I will attempt to further define my position by responding – partly in agreement and partly critically (hopefully, in a constructive way) – to a relatively recent article on a similar topic by Filip Tvrdý, "Anti-Scientism, Conceptual Analysis, Naturalism".[5]

So let me first say what I mean by "naturalism", or, more precisely, what is the concept of naturalism I am willing to go along with. My definition will consist of three main points, which I will first express in brief and then give a more detailed explanation for the sake of clarity.

First, I do not understand naturalism as some kind of philosophical theory (analogous to scientific theories, such as evolutionary theory, quantum theory, etc.) but as a philosophical attitude (stance, orientation).

Second, I consider the abandonment of the program (or ideal) of "first philosophy" to be the core of naturalism.

And third, I consider the insistence on the priority of the research method, which is characteristic of contemporary natural sciences, to be a necessary part of naturalism.

Naturalism as a Philosophical Attitude

In the first point, I contrasted the understanding of naturalism on the one hand as a (philosophical) theory and on the other hand as a (philosophical) attitude. This may, without further explanation, give rise to a number of doubts or ambiguities of which I consider the two types of reservations to be the most important, so I will try to answer them as a matter of priority.

The first reservation is based on a widespread understanding of naturalism that says that naturalism promotes the fusion of philosophy with science

5 Tvrdý, F., Antiscientismus, konceptuální analýza a naturalismus. *Pro Fil*, 19, 2018, No. 1, pp. 49–61 (hereafter Antiscientismus).

(especially with the natural sciences), or even a kind of "dissolution" of philosophy (philosophical problems, claims, methods) in science. However, if for the naturalistic philosopher philosophy is only one part of science, then it seems to be inconsistent to characterize it as an attitude because sciences such as physics, chemistry, and biology – which the naturalist considers exemplary – do not have as their primary goal to be "attitudes", but rather to generate testable theories about relevant segments or aspects of reality.

The second reservation is actually a follow-up to the first and represents a kind of psychological extension of it. Presenting naturalism as an attitude (and perhaps presenting philosophy as a whole in this way) may seem more like an evasive maneuver aimed at relieving the naturalist of the burden of proof in the sense that she does not have to defend the truth (or at least the plausibility) of her own clearly formulated philosophical theses.

In response to these two objections, I will try to explain why I consider it more appropriate to speak of attitude rather than theory when it comes to naturalism. As we will see in the discussion of the second part of my definition of naturalism (which we could briefly refer to as the principle of immanence), the use of the term "attitude" should in no way imply that the aim is to exclude philosophy from general scientific research. Rather, this term is intended to express the normative nature of naturalism. But normativity is not something that lies outside of science, or that approaches it only from the outside, so to speak. That would mean having a picture of science, according to which it is nothing more than finding out and systematically organizing facts. Of course, the most convincing product of science is empirically successful theories, which expand our knowledge in the form of new facts, explanations, and unifications. An integral part of the whole process, however, are, for example, the methodological standards of the scientific discipline and the negotiation of these standards within the scientific community. The fact that these norms are not for most of the time the focus of the work of scientists does not mean that they are not implicitly present (in the form of internalized values, mental settings, and ideals). The fact that they do not need to be frequently mentioned or even revised during standard scientific work indicates their functionality, not their absence. They are implicitly present in all those situations where a scientist knows what a good explanation should look like, what good evidence or a good definition should look like, and so on.

Let us now ask as follows: Are these (implicitly accepted and lived) methodological norms theories or parts of scientific theories? Are they something whose correctness or truthfulness a scientist can defend in the same way that she tests the experimental implications of her theories? The answer is yes and no. Not in the sense that these normative elements are rather –

metaphorically speaking – the atmosphere in which the average scientist works and not individual hypotheses prepared or being prepared for empirical testing. Yes, in the sense that even these norms have not fallen from some epistemic sky but are part of scientific practice and, together with it, either promote and quietly serve further progress or become a barrier to epistemic progress.

Thus, when I speak of naturalism as a philosophical attitude, I mean the overall normative attitude within the framework of scientific research, which is the philosophy of this research roughly in the sense in which we used to talk about "corporate philosophy". It is not a theory among other scientific theories, and in this respect it is something more vague (because it is mostly implicit), but it does not follow that, if necessary, its individual components cannot be (more or less adequately) made explicit. Nor does it follow that it cannot be argued in favor of naturalism as a philosophical attitude, that naturalism, understood as an attitude, can only be a subjective expression of personal preference on which any further debate is, so to speak, inappropriate. All I am saying is that the argument in favor of naturalism, if it is to remain intellectually honest, cannot be conducted in the naive triumphalist way that is typical of public pronouncements of certain well-known philosophical naturalists.[6] I will come back to this point in the final part of the article.

Naturalism and the Principle of Immanence

As can be easily recognized by any reader who has devoted at least some attention to the subject of naturalism over the last 50 years or so, the formulation of my second defining characteristic is taken directly from Quinean sources. Among other virtues, Quine undoubtedly had the ability to express philosophical views in a pregnant and stylistically inventive way, to the extent that in some cases his reader could take the impression of unambiguity, even though there was in fact no particularly detailed elaboration and development of the subject in Quine. However, the absence of Quine's systematic elaboration on the notion of naturalism is nowadays sufficiently compensated by the work of his successors, who explicitly addressed this issue, whether their primary motive was to work on their own naturalistic version of philosophy (based on Quinean conception, but revising it at some points), or a systematic and historically accurate account of Quine's philosophical legacy.[7]

6 Alex Rosenberg's article, "Why I Am a Naturalist", which appeared in *The New York Times* (September 17, 2011), may serve as a case in point.

7 One of the prominent representatives of the first (systematic) approach is the American philosopher Penelope Maddy (see, for example, her book *Second Philosophy: A Naturalistic Method*.

In his recent book,[8] Sander Verhaegh focused on the aspect of Quine's naturalism that he considers his central motive. And that is precisely the rejection of "the first philosophy". In his work, Quine expressed the same idea in several memorable ways, sometimes directly, sometimes metaphorically. Let us remind ourselves of the most important formulations:

1. The ideal of the "first philosophy" must be abandoned – philosophy can be neither a priori propaedeutics nor a project of providing the foundations for science.[9]

2. Philosophy and science are not fundamentally different cognitive enterprises – in fact, there is continuity between them.[10]

3. There is no external standpoint ("cosmic exile") from which scientific disputes can be philosophically judged (e.g. in relation to methodological criteria), we must always start (and stay) in the middle, within scientific research.[11]

4. The philosopher is situated on the same ship and on the same open sea as the scientist, she has no superior view or conceptual apparatus coming from a "transcendent" seaport.[12]

In his work, Verhaegh seeks to prove by a detailed reconstruction of the Quinean corpus not only that this idea is the core of Quine's naturalism, but also that the reasons for its acceptance are deeper on Quine's side than suggested by the traditional interpretation. According to the traditional view, Quine became a naturalist due to the disappointment of logical positivism. Since I am not at this moment concerned with interpretive matters concerning Quine's philosophical development, I will not elaborate this further other than to state that Verhaegh's reconstruction seems entirely plausible to me. However it may turn out, in any case, from a purely hermeneutical perspective, I consider the very idea of "philosophizing from within" – which I used as the second defining feature of naturalism (in my understanding) – to be extremely important from a systematic perspective.

Oxford, Oxford University Press 2007 [hereafter *Second Philosophy*]), while in the field of historical-philosophical work on Quine's philosophy I would like to highlight the contribution of the contemporary Dutch philosopher Sander Verhaegh.

8 Verhaegh, S., *Working from Within: The Nature and Development of Quine's Naturalism*. Oxford, Oxford University Press 2018.

9 Quine, W. v. O., *Ontological Relativity and Other Essays.* New York, Columbia University Press 1969, p. 126.

10 Quine, W. v. O., "Naturalism; or, Living Within One's Means". *Dialectica*, 49, 1995, No. 2–4, pp. 251–261, esp. p. 256.

11 Quine, W. v. O., *Word and Object*. Cambridge, MIT Press, [1960] 2013, p. 254 (hereafter *Word and Object*).

12 Quine, W. v. O., *Theories and Things*. Cambridge, Harvard University Press 1981, p. 72; Quine, W. v. O., *Word and Object*, p. 3.

It is necessary, however, to think a little more deeply about what a philosophy understood in this way means and what its *modus operandi* is (can be). It is relatively easy to contrast such philosophy with some exemplary philosophical programs from the history of philosophy. The very term "first philosophy" leads us (apart from the older Aristotelian roots) almost automatically to a Cartesian vision of a unified system of knowledge based on metaphysical foundations acquired through methodological doubt and the natural light of reason. Later in Kant's critical philosophy, the autonomy of philosophy and its qualitative difference from the "special sciences" is based on the belief in the ability of reason (once and for all) to examine its unchanging structural features and thus become the supreme judge on matters of the highest (theoretical and practical) importance. Similar ambitions are characteristic of Husserl's phenomenology, which is basically one long meditation on the autonomous territory of philosophy ("phenomena of pure consciousness") and the corresponding purely philosophical methods of examining it ("phenomenological reductions").

But the fact that we, as Quinean naturalists, can distance ourselves from the above historical projects (and the like) does not necessarily mean that we know sufficiently precisely what to do philosophically in the current situation, i.e. what it practically means to begin (and remain) "in the middle" and what specific types of work to do on Neurath's ship.[13]

Let us therefore begin with a negative definition: What types of intellectual activities should a naturalist "working from within" not participate in or, resp. of which of these activities should she be instinctively suspicious? Here are some examples:

1. We should resist the temptation to remain trapped in a circle of purely intra-philosophical discussions, which have essentially no relevant connection to any area of scientific research, but nevertheless (if not thanks to that) can fascinate a certain part of the professional philosophical community for a relatively long time (typical examples are the infamous Gettier discussions in epistemology or some modern anthologies of metaphysics dealing with the themes of being, identity, causality, etc. practically without any connection to current physical theories).

2. We should be very suspicious of dealing with *prima facie* philosophical questions such as "What is X?" (consciousness, knowledge, determinism, hu-

13 It may be of interest to some readers that the first occurrence of this by the now well-known metapher of sailors who have no alternative but to rebuild their ship on the open sea dates back to Neurath's 1913 article on economics, "Problems in War Economics". A very thorough historical retracing of Neurath's use of this simile can be found in the book *Otto Neurath: Philosophy Between Science and Politics.* Cambridge, Cambridge University Press 1996, pp. 89–94.

man being) without having them properly anchored in some ongoing scientific discourse and without knowledge of current issues and the functioning of relevant conceptual tools in respective scientific disciplines.[14]

At first glance, it might seem that the naturalistic imperative of working in the middle and from the inside is relatively straightforward and easy to observe if a given philosopher chooses this path. However, this simplicity can be an illusion caused by looking at things statically, not dynamically, as we should. Even if we start working "from the middle", as Quine recommends, it does not mean that we will stay in that center permanently, because the situation in scientific research is evolving and the focus of productive and constructive problems of a philosophical nature is shifting. For instance, many prominent philosophers (and philosophically-oriented physicists) of the twentieth century have worked hard to tackle the problems of quantum physics in a way that is fully consistent with the naturalistic orientation I hold here. It is an indisputable fact that many of these interpretive problems arose directly in scientific practice and that many of those who set out to shed light on them had an intra-scientific motivation, which was to improve current physics in terms of its conceptual maturity as well as epistemic productivity.

However, looking back at almost 100 years of interpretive and reform efforts, we see, in addition to a few unquestionable benefits for physics, a whole mountain of texts that may raise the legitimate question of whether redirecting this effort to other areas might not be more appropriate. Of course, in this sphere there is no clear algorithm that we could apply to evaluate the situation. Even among contemporary theoretical physicists, one can still find the view that a true (deeper) understanding of the foundations of quantum theory could perhaps help to solve the most acute problems in contemporary theoretical physics.[15] With this example, I just wanted to indicate that the topics that the philosophically busy sailor is working on aboard Neurath's ship are subject to revision (like almost everything) and that the category of

14 In order to direct the reader to a more extensive critique, I will add that James Ladyman and Don Ross (et al.) in *Every Thing Must Go: Metaphysics Naturalized* (Oxford, Oxford University Press 2007) did very deserving work on a specific critique of contemporary analytical metaphysics. Their textbook, deconstructive work in relation to the aspirations of analytical a priori metaphysics is highly recommended to anyone with a naturalistic mindset (regardless of whether one agrees with the constructive parts of their book).

15 To name just two examples, Lee Smolin and Sean Carroll are contemporary, philosophically-minded theoretical physicists who share this belief, as can be seen from their recent popular books. Smolin, L. – Bradonjic, K., *Einstein's Unfinished Revolution: The Search for What Lies Beyond the Quantum*. London, Penguin Press 2019; Carroll, S., *Something Deeply Hidden: Quantum Worlds and the Emergence of Spacetime*. New York, Dutton Books 2019.

eternal questions / problems is as dubious as the category of the transcendent standpoint.

At this point, I would like to mention another example of how to circumvent the principle of immanence, which also seems important from the point of view of contemporary theoretical philosophy. It was aptly described by Penelope Maddy from the example of van Fraassen's philosophy of science.[16] As is well known, van Fraassen, in his influential work of 1980,[17] advocated in the philosophy of science a version of agnosticism called "constructive empiricism", the point of which is to shift the focus from the ideal of literal truth of scientific theories (with appropriate ontological commitments) to the demand of their purely "empirical adequacy". For example, answers to the questions about what types of entities exist in the world are not something we should ask of science, according to van Fraassen. It suffices that the theoretical model, which, say, physics offers us, and which we can sometimes retell in such a way that there will be such terms as "electrons", "quarks", "quantum fields", etc. is in accordance with the behavior of observable entities (among which the "objects" just mentioned do not count). Van Fraassen obviously wants to give the philosophical observer of science a certain degree of autonomy and philosophical freedom. From an intra-scientific point of view, he acknowledges that e.g. statements about electrons are meant to be literally true and are far from literary statements about mythical (imaginary) beings. On the other hand, from the standpoint of philosophical reflection on science, he is satisfied with the criterion of empirical adequacy.

Such a position has its charm in that its author is at first sight attached to real scientific practice more than his critics, as he can criticize the overestimation of ontological obligations of scientific theories (in relation to unobservable entities) as an unnecessary introduction of metaphysics into empirical scientific research. Further, philosophy done in this spirit retains with its ontological agnosticism a certain degree of the freedom and privilege of being on the higher pedestal, thanks to which it does not have to be dragged down by the contingent vicissitudes of falsifications of fundamental scientific theories.

Either way, I want to point out the difference between this approach to the role of philosophy and the naturalistic attitude in my understanding. Apart from the notorious conceptual problems associated with the possibility of the sustainable (and productive) distinction between observable and unobservable entities, the naturalist philosopher must reject van Fraas-

16 Maddy, P., *Second Philosophy*, pp. 305–311.
17 Fraassen, B. v., *Scientific Image*. Oxford, Oxford University Press 1980.

sen's dichotomy between philosophical interpretation and intra-scientific research. Of course, she does not do so because she wants to voluntarily give up her free reflection and let her ideas about the composition and functioning of the world be dictated by current theories. She does so because she sees herself as part of this whole cognitive enterprise and tries to work with the best theory that is available. Naturally, she realizes that "the best" may later prove to be severely inadequate, or even completely wrong in some respects. However, this is part of the fallible nature of this whole process, which she accepts as a harsh part of (scientific) life.

When philosophizing, there is always a tendency to step out and separate from the turmoil of current events and look for (take) a position from which the philosopher will evaluate with appropriate distance the strengths and weaknesses of a given, reflected upon activity, its broader consequences, assumptions, etc. This tendency is deeply inscribed in the consciousness of the professional philosopher and forms an important part of his self-image. Thanks to this, philosophical reflection can be very beneficial for the overall process of cognition. At the same time, however, there is a certain temptation toward a "transcendent position" that will probably never disappear, but which must be held under control. There is a difference – if I may put it a little paradoxically – between the "internal" distance, which serves to better understand the domain we are still in, and the "external" distance, which secures itself against the vicissitudes of the domain by encapsulating itself in dogmatism presented externally as a deeper and more critical position. I see a danger of this kind, for example, in approaches that discourage all discussions on ontological problems of contemporary fundamental scientific theories by pointing to their principled instrumentalist position.

Primacy of Natural Sciences

If we consider only the first two defining features, we could call the described philosophical position an immanentism or an attitude of immanentism. The rejection of the "first philosophy" would not yet have to say anything about a specific kind of research, in the middle of which philosophy wants to see itself or understand itself as one of the cooperating components. We could imagine as one alternative a philosophical position called "culturalism", which would assign a central role in the knowledge of the world and ourselves to the sciences of culture (or the humanities), while the various scientific disciplines could be understood from this position instrumentally as a set of convenient tools with limited descriptive value. However, since the position I am trying to outline and partly defend is called "naturalism", it is obvious

that the situation will be exactly the opposite in this regard. The third indispensable feature of naturalism, therefore, is that with regard to cognition of the world, naturalism prioritizes scientific disciplines such as physics, chemistry, and biology.

As is clear from the enumeration of the various types of naturalism that I mentioned in the introduction (see footnote 4), it is far from the case that all those who call themselves naturalists today accept the thesis of the epistemic superiority of the natural sciences. The fact that they nevertheless claim for themselves the term "naturalism" can have two explanations. First, there may be some different understanding of nature in the game than that which is characteristic of contemporary natural sciences. And second, the reason for the use of the term "naturalism" by such thinkers may be that they consider "supernaturalism" as the main contrasting term to naturalism. To join naturalism in this sense is to reject the belief in supernatural entities or phenomena (mythical beings, gods, angels, cosmic consciousness, paranormal phenomena, etc.). In principle, there can be no objection to this way of defining naturalism. The reason why I do not define my understanding of naturalism in contrast to the supranatural lies in two points. First, the supranatural category may be clear enough at the individual level, but in broader discussions it is semantically too variable and vague. And second, what I expect from the definition of naturalism as a certain philosophical position is not only a rough outline of a certain worldview, but also a certain outline of how a naturalist works in his intellectual activity, his basic goals, tools to achieve them and preferred sources.

Filip Tvrdý and Naturalism

In this last part, I would like to supplement my understanding of naturalism with a brief comparison with the account of naturalism presented by Filip Tvrdý in his article from 2018. It must be said in advance that the presentation of naturalistic philosophy is not the only topic of this article and that the author's intention was not to give a detailed analysis of naturalism (including all of its strengths and weaknesses) and a subsequent thorough defense of its claims. Rather, the article focuses on characterizing the three dominant stances to the issue of the relationship between philosophy and science that can be encountered in contemporary and recent philosophy. Quine-inspired naturalism is just one of these three philosophical positions, and it is also the position with which F. Tvrdý identifies himself. The remaining two philosophical strategies, which he considers to be fundamentally erroneous or at least too limited and therefore insufficient, are described with the terms "anti-scientism" and "conceptual analysis".

By "anti-scientistic philosophers", he means a wide range of thinkers whose attitude towards the scientific grasp of the world could be generally described as distrust or even suspicions, so they see an important function of their philosophy in unmasking the alleged blind spots of science, its ideological prejudices, objectifying consequences, etc. The variety of types of critique of science in this camp is enormous – from the Rousseauian "noble savage" rhetoric through the various currents of "philosophy of life" at the turn of the twentieth century, to the phenomenological and Heideggerian critique of science and, more recently, radical forms of feminist critique of science. As for "conceptual analysis", Tvrdý has in mind the understanding of the nature of philosophy that many philosophers adopted during the twentieth century in the aftermath of Wittgenstein's "linguistic turn" and that later became known under the phrase "linguistic philosophy". According to this conception, philosophy has its own autonomous domain and method (outside of "special sciences") that consists in logical-semantic and linguistic analysis of scientific (and non-scientific) discourse, in identifying, clarifying, and removing conceptual confusions, or (in a more positive sense) in the systematic geography of basic conceptual schemes that are also an (implicit) part of sophisticated scientific theories.

Since, regarding the latter two philosophical strategies, my position and my assessment come very close to that of F. Tvrdý in his article, I will confine myself to two very brief remarks. First, as far as "anti-scientistic" philosophy is concerned, although I share with many other philosophical naturalists the belief that much of the critique of science coming from the anti-scientistic camp is based on hasty conclusions, speculative tenets, or simply lack of (more than superficial) information about relevant scientific disciplines, we should not pour out with the bath water the screaming baby whose scream – though perhaps not quite well articulated and not always capable of meeting the demands of a meaningful discussion (or controversy) – can give us a kind of distance from the scientific worldview. The distance that I suggest here is not meant to call for a significant modification, or even abandonment of the scientific worldview (naturalism), but only to prevent a state in which we would take the naturalistic attitude for granted or as some kind of intellectual automatism.

Secondly, with regard to philosophy understood as a conceptual analysis, I would like to point out one key statement that appears in Tvrdý's article but which, in my view, is not properly explained by the sentence following the claim. The claim is that conceptual analysis should not be conceived as something that goes on outside of science in the autonomous sphere called philosophy, which is capable of a priori insights into the conceptual scheme, but on the contrary, conceptual analysis should be understood and practiced by

philosophers as an integral part of scientific research itself. As Tvrdý writes in his article (drawing on David Papineau[18]): "Conceptual analysis is therefore not an alternative to the scientific method, but a part of it."[19] However, for an example of conceptual analysis understood in this way, I would not refer, as does Tvrdý, to questionnaire methods of "experimental philosophy", but I would rather try to draw the reader's attention to concrete historical instances of conceptual analysis linking scientific and philosophical discourse which brought either significant changes or were at least strong impulses for further scientific research, for example in the field of sciences such as mathematics (concepts of number, set, proof, etc.) or physics (concepts of time, force, energy, and field).

But let us now look at how F. Tvrdý outlines the naturalistic version of understanding the problem of the relationship between philosophy and science. In this respect, too, I see a significant intersection between his position and mine. In particular, I would like to commend the very straightforward way in which he appeals to contemporary philosophers not to remain in their philosophical bubbles and to seek ways to reintegrate their philosophical activities within the broad confines of scientific research. If we do not do this, philosophy will lead us to share the same fate as theology. Not to extinction, that is to say, but to something much worse: the self-deception of importance (as viewed from the inside of philosophical community) and factual irrelevance (as viewed from the outside). (Unlike theoretical philosophers, however, theologians may have as their last resort practical sermons for believers).

Now I would like to draw attention to two points where I perceive certain differences in the naturalisms to which we feel respectively committed. The first relates to the often used distinction between methodological and ontological naturalism.[20] If we take this distinction as it is standardly used,[21] it

18 Papineau, D., The Poverty of Analysis. *Proceedings of the Aristotelian Society*, 83, 2009, No. 1, pp. 1–30.

19 Tvrdý, F., Antiscientismus, p. 54.

20 Ontological naturalism is sometimes synonymously referred to as "metaphysical naturalism", but most authors seem to prefer the first term – perhaps because the adjective "metaphysical" carries with it a connotation of speculation that the naturalistically-oriented philosopher is trying to avoid.

21 Methodological naturalism promotes the exclusivity of scientific methods for any cognition that seeks to make legitimate claims to credibility and reliability, but leaves aside – or refrains from – the question of ontological commitments arising from (the most successful) theories that are the product of the application of scientific methods. Ontological naturalism has the ambition to be not only a methodological recommendation, but also to say straight away – in Quinean terms – what is there. This distinction was foreshadowed in the distinction between methodological and metaphysical materialism, which was born in the environment of the early neo-Kantian movement in the second half of the 19th century. F. A. Lange's work *History of Materialism and Critique of its Present Significance* (1866) played a key role here.

cannot be denied that it is a useful conceptual tool for preliminary orientation in the heterogeneous environment of numerous naturalisms. However, problems arise as soon as the discussion takes a turn to a more precise, and especially non-circular, parsing of the central substantive thesis of ontological naturalism. F. Tvrdý objects to the attitude of methodological naturalism on the grounds that, from his point of view, methodological naturalism is not sufficiently consistent in drawing conclusions from the hegemonic position of science in the field of knowledge. In specifying the content of ontological naturalism, he employs – without explicitly distinguishing them – two typical strategies: on the one hand the denial of the sphere of the supernatural (transcendent, immaterial) and on the other hand the narrowing of the world to what can be the object of scientific research using standard scientific methods.

As for his intention, I fully agree with him that naturalism as a philosophical attitude cannot be limited to the methodological aspect, because science ultimately is about knowing how the world is constituted and how it works. Ontological questions are a natural part of scientific research and there is no reason to deny them *via* instrumentalism or let them unwittingly transfer to some more dubious instances (speculative philosophy, theology, mysticism, intuition, common sense, etc.). However, as naturalists, we must honestly admit that the use of such dichotomies as natural vs. supernatural, immaterial vs. material – though conceptual dualisms of this sort may be unavoidable in this context – cannot be a completely satisfactory way to define the content of the ontological aspect of our naturalism. For example, finding a plausible definition between material and immaterial is a problematic enterprise also in terms of our current fundamental physical theories. Of course, we can always resort to the tactics of defining the natural, resp. material, as to what is the object of current scientific procedures or which could be subjected to such procedures in the near future. The price, however, is that we get stuck in the definitional circle that immunizes the thesis of ontological naturalism against any criticism from outside.

If we recall that one of the defining features of naturalism that I have decided to present and to some extent defend in this article is the above-mentioned immanentism, we could conclude that some form of circular (or let us say "immanent") reasoning is actually necessary here and does not need to be justified in a foundationalist way but simply accepted as *factum brutum*. In such a case, however, we should be clearly aware of our epistemic situation and not let ourselves be, for example, lured into speculative forms of ontological naturalism, which – in the heat of the fight against the supernatural, transcendent, etc. – easily degrade into ideological skirmishes that have little to do with scientific research.

The second point in F. Tvrdý's article concerning the characterization of a naturalistic attitude, on which I would beg to differ, is his – in my opinion too optimistic (or should I call it naturalistically self-confident?) – statement to the effect that traditional philosophical questions (in metaphysics, epistemology, philosophy of mind, philosophy of language, or even ethics) could be "quite unproblematically"[22] transferred into relevant scientific disciplines (physics, biology, neuroscience, etc.). I think I agree with the author in the belief that the best (most promising) way to solve or at least clarify the traditional philosophical puzzles is to make them accessible to standard scientific methods, as opposed to immunizing them against the application of such methods and maintaining at all costs their halos of depth and mystery. Nevertheless, we should not underestimate the complexity of conceptual problems, which are often the most persistent obstacle in the empirical study of certain areas of phenomena (e.g. in contemporary cognitive science) and which are sometimes conveniently made explicit and embodied in certain "traditional" philosophical questions. Even more than in theoretical philosophy, this situation is pronounced in the field of practical philosophy. The normative problems of ethics do not seem to be easily reducible to any of the available scientific disciplines. The very reformulation of these questions in the vocabulary of evolutionary theory or game theory poses a grave problem if we do not want to flatten them into a form that would be essentially equivalent to a simple change in the topic of discussion.

Conclusion – How to Move Naturalism Forward

In 2012, a several-day interdisciplinary workshop was held in Stockbridge, Massachusetts, entitled "Moving Naturalism Forward". The main organizing figure behind the event was the physicist Sean Carroll (working at Caltech at the time, occupying the former chair of Richard Feynman). The participants of this event were all people who in some sense adhered to a naturalistic worldview, even if they came from different professional backgrounds (philosophy, physics, biology, economics).[23] Although the discussions in this workshop displayed a high degree of enthusiasm and optimism for a global naturalistic approach to the world, these discussions also showed problems with mutual understanding and the ability to follow and constructively de-

22 Tvrdý, F., Antiscientismus, p. 57.

23 Among the most prominent and well-known figures that the organizers managed to bring to the table in this way were luminaries such as Steven Weinberg, Richard Dawkins, and Daniel Dennett. The complete recording of the individual sessions can still be viewed on YouTube or in the form of edited short videos on Sean Carroll's website [accessed on: 19. 2. 2021]. Available at: https://www.preposterousuniverse.com/naturalism2012/.

velop ideas from fellow naturalist thinkers with different backgrounds and areas of expertise.

I do not mention this event here because, in terms of its results, I would consider it the most important event in the naturalistic movement in recent years, although it must be acknowledged that the participants covered, in a very interesting and accessible way, almost all the major topics currently being discussed in connection with naturalism (emergence, morality, consciousness, and many others). What I want to point out is rather the central appeal, which is reflected in the name of the event and which I borrowed for this final part. And, secondly, it is the way in which the main organizer (in particular) tried to fulfill this intention (it is not so important now whether the group succeeded in it completely). I believe that all those who have an eminent interest in the development and prosperity of naturalism can learn a lesson from this meeting.

So, how to move naturalism forward, and what role does philosophy play in this endeavor? Let me make a few remarks and suggestions that are of a more prospective character.

First, naturalism as a philosophical position, like any other philosophical movement, over time tends to become entangled in its own conceptual problems, which are largely of terminological origin. More and more time is devoted to reflecting on and clarifying concepts than to getting to know the world itself. Not that metaphilosophical problems are just an insignificant part of a philosophical position. However, it is a question of adequate proportions. Whenever metaphilosophical considerations and discussions prevail over substantive inquiry, we must say that something is wrong with naturalism as such. Because it is precisely naturalism that is programmatically aimed at bringing philosophy back into play as part of the scientific knowledge of the world (the natural world, the social world, the world of culture). In this respect, naturalism seeks to distinguish itself from more traditional second-order philosophical approaches, which place at the center of philosophical reasoning some form of reflection on conceptual or linguistic means, sometimes making such inquiries not only central but even the only thing philosophy supposedly can and should contribute.[24] The naturalist, on the other hand, vehemently opposes such a division of tasks, because she sees in it, or at least – on the basis of historical experience – suspects the danger of detaching philosophy from current scientific research and fall-

24 One paradigmatic example of such an understanding of the role of philosophy within a contemporary philosophical environment is Hacker's Witttgensteinian conception based on the distinction between understanding and knowledge. (See, e.g., his essay *Philosophy: A Contribution, not to Human Knowledge, but to Human Understanding*, published in P. M. S. Hacker [2013], *Wittgenstein: Comparisons and Context*, Oxford University Press [2013]).

ing into the line of aprioristic "splendid isolation". Analysis and critique of conceptual tools should be an internal part of the overall cognitive scientific process, just as the occasional grinding of a scythe is a natural part of a mowing activity.

Within academic philosophy, there are many temptations that ultimately lead to the fact that this principle is formally recognized and even explicitly emphasized, but in fact not being observed and followed. As for theoretical philosophy, a philosopher who obtains his philosophical education at most contemporary institutes of philosophy is encouraged to more or less aprioristic thinking. What usually counts the most and what is most appreciated by peers are conceptual observations and arguments based on the analysis of older philosophical concepts and the discovery of their inconsistencies or incoherences (with the abundant use of the method of often far-fetched thought experiments) and subsequent suggestions of novel arguments, conceptual distinctions, etc. (which means another spin of the wheel of purely internal philosophical debates). The realization that following actual research in specialized scientific disciplines is an extremely time-consuming and intellectually challenging proposition strengthens the tendency of philosophers to confine themselves to their philosophical "safe spaces".

This has certainly been said many times in the past and no doubt more eloquently and extensively (not to mention from more competent mouths). So why repeat it at this point? It seems to me that even the great dominance of naturalism in the contemporary philosophical world (or at least in a significant part of it) has still not brought about the main point of it all. And this is a reform in the basic education of philosophers who in the future intend to devote themselves specifically to theoretical philosophy. In principle, the education of philosophers still consists in reading (philosophical) texts, in their interpretation and analysis, in identifying arguments and their critique, and in proposing novel arguments. Nowhere in this process of education is there a significant insistence on systematic and detailed acquaintance with particular theories and methodological procedures of key scientific disciplines such as mathematics, physics, and biology. At the very best, it is assumed that a young philosopher who wants to devote herself, e.g. to the topic of the metaphysical aspects of the natural sciences, will, in addition to her normal philosophical education, seek to supplement her knowledge and skills elsewhere on her own.

But the point of the naturalistic approach, as we understand it in this text, is that theoretical philosophical disciplines as such (as a whole) should not only be superficially informed by science, but deeply embedded in the research environment and research atmosphere of those scientific disciplines from which we, as naturalists, expect first and foremost new cognitive gains

in terms of the understanding of fundamental physical interactions and entities, subjectivity and consciousness, biological life, and the workings of societies. Thus, in order for the naturalistic approach in philosophy to function not only as another among the isolated academic philosophical currents, it is necessary to proceed to more radical changes in the content of study programs within universities and faculties. Although in recent decades there has been plenty of talk about a naturalistic turn in philosophy, which was intended and presented as a significant *Revolution der Denkungsart* (to borrow from Kant against Kant), real change, which would not be just another ephemeral metaphilosophical fashion, can only come on the basis of systemic changes in the way the new generation of philosophers becomes acquainted with philosophizing from the beginning. I am fully aware that this is a very sensitive spot for all members of the philosophical community (whether of naturalistic or non-naturalistic bent of mind) and that putting such considerations into practice is not in sight for the time being. However, the merging of horizons is bound to begin unless philosophical discourse regarding time, causality, substance, etc. in the academic subdisciplines of theoretical philosophy is not to have the same relevance to the future knowledge of the world as theological debates on transubstantiation have to the current knowledge.

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