Ontologija ir epistemologija

STEPS TOWARDS ANTI-PHYSICALISM*

Mariusz Grygianiec

Institut für Philosophie, Universität Augsburg Universitätsstraße 10, 86135 Augsburg, Germany e-mail: mgrygian@uw.edu.pl

Abstract. Ontological physicalism is the thesis that all existing entities – individuals, properties, events, states of affairs – are wholly physical. This doctrine is said to receive a very strong support form contemporary science. In particular, physicalists have customarily been convinced that scientific theories, taken in general, somehow directly imply their metaphysical doctrine. What is more, they have tended to say that other elements of their philosophical approach, such as the causal closure principle or the nooverdetermination rule are also consequences of scientific theories. In my text, I present some arguments in favour of antiphysicalist position, according to which ontological physicalism is not true and its justification does not look as promising as physicalists are usually prepared to think. In particular, I argue, contrary to a widespread opinion, that the principle of causal closure is not true and cannot be used in any anti-dualistic argumentation. I also voice some scepticism with regard to the law of the conservation of energy and the no-overdetermination rule as an element of physicalist argumentative strategies. Then, as an illustration of an anti-physicalist methodology, I describe methodological dualism – a typical methodological approach universally accepted within cognitive sciences, neuroscience, and psychology. At the end of the paper I briefly and schematically present five model arguments against physicalism. The aeneral aim of the paper is to show that physicalism, although it has enjoyed a great popularity among contemporary philosophers and can still boast of scientific support, has in fact to grapple with many theoretical difficulties, which however are constantly ignored by physicalists. Although I do not present any positive argument for dualism as such, my attempts can nevertheless be interpreted as an indirect argumentation in favour of every position that is opposed to physicalism.

Keywords: physicalism, causal closure, overdetermination, physical, dualism

Ontological physicalism is the thesis that all existing entities are physical – there is nothing over and above the physical. This thesis claims, in particular, that every object (individual) is physical, every property is physical, every state of affairs is physical, every event is physical. Anti-physicalism, sometimes more or less justly also called "dualism", is a negation of the above mentioned convictions. In its most modest version it is the thesis that at least some properties are not physical. I myself am an adherent of this thesis.

^{*} This text has been prepared within a project that has received funding from the European Union's Horizon 2020 Research and Innovation Programme under the Marie Skłodowska-Curie grant agreement No 650216 ("OntoPerson"). I would like to express my gratitude to my supervisor at the University of Augsburg, Prof. Uwe Meixner, for his support and valuable critical comments.

In this text I am going to present some arguments which may serve as a partial basis for a rejection of physicalism and an acceptance of anti-physicalism. They are arguments of different significance and power. As many other instances of philosophical reasoning, they are not impeccable und fully compelling, and I am almost sure that they will not be looked upon favourably. What motivates me to present those arguments, are (i) a deep conviction that physicalism is a false doctrine, (ii) a conviction that the efforts to justify physicalism are not fully satisfactory – contrary to what is routinely claimed by its supporters, (iii) a conviction that physicalism neither offers a more useful methodological hypothesis than dualism, nor constitutes a better metaphysical proposal (whereby I place myself at the intellectual antipode of the philosophical mainstream in contemporary philosophy of mind).

There exists, it goes without saying, an important difference between physicalism and materialism. The former stance tries to define the predicate *physical* by appealing to physics. The latter puts a lot of effort into defining the predicate *material* by means of appropriate ontological terms (cf. e.g. Augustynek 1996; Misiek 1996). For some reasons it is less problematic to formulate basic claims of materialism than those of physicalism. Unfortunately, contemporary materialists prefer to be called physicalists, most likely due to the fact that such a nomenclature more emphatically expresses the alleged connection between their stance and science itself, while suggesting that those who do not have physicalistic convictions distance themselves from scientific practice. For someone who accepts neither physicalism nor materialism, it is difficult to settle the question whether, someone who argues against the former is in fact also arguing against the latter (I am not sure whether someone can be physicalist without accepting materialism, and *vice versa*). For the sake of clarity and wishing to avoid arbitrariness at this juncture, I shall limit myself, in what follows, to an analysis of physicalism only.

The general thesis of ontological physicalism logically implies its particular versions: if one is a general physicalist, one is automatically a physicalist with regard to, e.g. properties or states of affairs. A reverse relation does not hold: it is possible to maintain physicalism with regard to individuals while rejecting it with regard to events. I set here aside the question whether physicalists of this sort really exist or not. However, it seems that property dualists may be physicalists with regard to individuals (being anti-physicalists with regard to properties). I am not sure, however, whether a fullblooded physicalist would ideologically consent to such a diversification within his own philosophical doctrine.

The weakest version of ontological antiphysicalism is the thesis that some entity is not physical. It is possible, however, to accept stronger versions of anti-physicalism, maintaining, for example, that some individuals are not physical (minds, souls?), or that some events are not physical (mental events?), or, as I am prepared to do, that at least some properties are not physical. Nevertheless, in order to deny physicalism it suffices to accept the mentioned most modest version of anti-physicalism. In this text I shall not, however, dwell at length on the question of exactly which properties are not physical.¹ Nor am I going to present any detailed *positive* arguments in favour of anti-physicalism or dualism. Instead, I shall try to bring to light some reasons on the basis of which it would be possible to reject physicalism or, at least, to take a sceptical attitude towards that doctrine.

Theses of Physicalism

To begin with, it would be fitting to establish in a more precise manner what physicalism claims and what terminology it uses. As has already been mentioned above, its general and most basic thesis is the claim that everv existing entity is physical. As has also been pointed out, from this general thesis follow the more detailed claims relative to individuals, properties, events, and states of affairs. Sometimes physicalist theses are not formulated in the way suggested here. For example, sometimes theses of the following type are endorsed: "Every non-abstract particular object (individual) is completely physical" or "Every mental event is identical to some physical event". In such cases, it is difficult to unambiguously determine whether those theses are an indication of a general philosophical attitude or whether they should rather be treated in a somewhat restricted manner (i.e. as being limited to a given domain). It seems to me, however, that if someone is, for instance, a supporter of the token identity theory, then this fact is, at the same time, a manifestation of his or her physicalist stance in toto. Such manifestations are - apart from the token identity theory – the type identity theory, reductive and non-reductive physicalism, and eliminative materialism. Incidentally, it is worth noting that there is nothing specifically metaphysically non-reductive involved in the doctrine of non-reductive physicalism - with it an absence of reduction pertains merely to the level of language and theory (from an ontological point of view, non-reductive physicalism is compatible with property dualism). Regarding the ontological level a non-reductive physicalist still remains a selective reductionist, because he or she subscribes to the token identity theory which identifies mental events with physical events (cf. Davidson 2001). Non-reductive physicalists who would accept the thesis that some mental events are not physical, would not differ from event dualists.

Another issue is the question of the meaning of the predicate physical. An entity is physical when it is either a physical individual, a physical property (or relation), a physical event or physical state of affairs. Typically, physical entities are characterised as being those entities which are the subject of scientific research in physics, or those which either are ontologically dependent upon the former or are constituted by them or supervene on them (cf. Dagys 2007; Dagys et al. 2014: 147–148) or, finally, are realised by them. Instead of a general appeal to physics, the phrase "a subject of physical theories that are considered to be true" can also be used in this context. An appeal to supervenience or ontological dependence is not a very fortunate one, because the holding of these relations does not logically imply that the relata can be identified: it is conceivable that there is something which is dependent on, or supervenes upon, some physical objects, but which is itself not

¹ For the sake of clarity, I only hint that for me examples of non-physical properties are certain semantic properties of the contents of beliefs.

physical (cf. e.g. Meixner 2014: 18-19). Of course, such an interpretation would be incompatible with physicalistic intentions. An attempt to define the predicate physical on the basis of physics encounters Hempel's dilemma (see: Hempel 1980; for various reactions cf. e.g. Crane and Mellor 1990; Melnyk 1997, 2003: 11-20; Crook and Gillett 2001; Montero and Papineau 2005; Wilson 2006; Ney 2008; Stoljar 2010: 93-108; Bokulich 2011). In short, the point is that it is not very clear what type of physics is spoken of when the relevant predicate is defined: is it contemporary physics, in terms of the current content of our best scientific theories, or is it a future "ideal" physics. In the first case – since physical theories sometimes happen to be false - the thesis of physicalism might prove to be false as well. In the second case, since it is not known at present what scientific theories future physics will include, it is also not known at present what physicalism is really claiming (thus, physicalism seems to be an unacceptably indeterminate and vague claim). The discussion in the philosophical literature clearly indicates that almost all solutions to this dilemma are unsatisfactory. The only convincing solution seems to be to question the presupposition of the dilemma, namely, that the enumeration of possibilities to be taken into account is exhaustive (i.e. either contemporary or future physics). However, this solution is also unsatisfactory because it does not help too much in defining the predicate physical itself - although the said manoeuvre is totally legitimate, it does not indicate by itself what one could appeal to in order to formulate an adequate definition. In the end, philosophers usually opt for determining the meaning of the predicate in question by way of examples, providing

indisputable instances of objects commonly considered to be physical, and then suggest a certain way of generalisation. Typically, the procedure takes the form of choosing, within the domain of objects studied by physics, certain physical individuals as representative examples, and then determining, as being physical too, properties that these individuals possess. In a similar manner physical events and physical states of affairs are dealt with. By this procedure a list of typical physical individuals (e.g. atoms, molecules, chemical compounds, cells, tissues, etc.) and physical properties (e.g. having an electric charge, having a rest mass, having a suitable molar mass, having mitochondria, containing sodium ions, etc.) is obtained. Subsequently, the remaining individuals and properties recognised in scientific theories are dealt with in the same way. It is precisely enumeration of examples and generalisation by analogy that serves as the means of achieving an approximate understanding of what a physical object is (and, conversely, what - if any - nonphysical objects would be). This is perhaps not a fully satisfactory procedure, but it is probably the most reasonable choice in the complicated task at hands. One way or another, physicalism is the view according to which every entity is physical or can be identified with a physical one.

Another issue is the modal force with which physicalist claims have usually been formulated. This problem, although a very important one, is not specifically recognized in the philosophical literature. The question is, *inter alia*, whether we should regard the predicate *physical* as devoid of modal meanings, or whether the opposite is the case. Taking into account premise 6 of Meixner's neo-Cartesian argument

(Meixner 2004: 89), consider the two sentences: "My body is a physical object" and "My body is necessarily a physical object." The following question immediately arises: Would it be at all possible for my body to be a physical object in the world w_1 , and at the same time for numerically the same body to exist and be a nonphysical object in the world w_2 ? If such a situation were excluded - what probably every full-blooded physicalist would like to do - it would mean that objects are physical by necessity, i.e. that they are physical in all possible worlds in which they exist. If a physicalist, nevertheless, objected to this interpretation, he would have to deliver an explanation of what makes it true that a body which is nonphysical in some world (and is, therefore, not necessarily physical), is physical in our world. I agree with Meixner that it is doubtful whether a physicalist could explain this; it seems to me a better option simply to accept the idea that if something is physical, it is physical in every possible world in which it exists. This option, however, has some serious consequences for physicalism. Perhaps this is one of the reasons why the issue of the modal strength of being physical is a problem rather reluctantly addressed by physicalists - the problem of the mentioned serious consequences I shall temporarily set aside.

Adherents of physicalism are normally convinced that their fundamental ontological thesis is directly entailed by scientific claims. This conviction, taken literally, is not true. First, the claim that all entities are physical is a general one; thus, it is a claim about all entities existing in the world (including abstract, mathematical, mental, and even, if any, spiritual objects). The trouble is that no one knows for certain whether the range of the theories of modern science encompasses all of these entities. The belief that they fail to do so is, at least on first sight, the more likely belief.² Even ignoring the problem of abstract or mathematical, mental or fictional entities, it seems that the theories of modern science would encompass all entities only if we had at our disposal a complete physical description of the universe. However, we do not currently possess such a description and it is, in all probability, beyond our reach. Even if someone were convinced that we already have something like such a description, one would need to meticulously demonstrate that the quantifiers in all individual scientific statements somehow quantify over all existing entities. I find it difficult to imagine that anyone would be able to carry out a procedure of this type. Moreover, the thesis of physicalism is a philosophical claim; even if we ignored the difficulty mentioned earlier, additional philosophical theses and definitions would still be required in order to infer the thesis of physicalism from scientific claims. These theses and definitions cannot be obtained within any scientific discipline in a way that is independent of philosophy.

The above remarks by no means serve to demonstrate that physicalism does not have any justification. On the contrary, physicalism seems to be at least partially supported and confirmed by scientific practice, cer-

² A competing interpretation would be that scientific theories somehow address all entities in the universe (indeed, this would be required by unrestricted quantification in the theories of science), but at the same time the complete identification of these entities would be beyond the reach of the human mind. According to this interpretation, the human mind would be in a position to have scientific knowledge about objects which it has never been confronted with and whose existence it has not even been aware of. Although this interpretation seems absurd at first, it is not without any foundation.

tainly better than the competing philosophical positions. It should be remembered, however, that the thesis of physicalism is not entailed by any set of scientific statements alone: that it could follow from such statements only if we had at our disposal a complete physical description of the universe and if we added to it appropriate philosophical theses and definitions. Indeed, both physicalism and other philosophical theories are not, in the strict scientific sense, verifiable or falsifiable at all. The entire situation could be summed up as follows: the acceptance of physicalism in the light of modern science is certainly a sensible move, perhaps even the most sensible one, but this does not automatically mean that the rejection of physicalism is in this light of science entirely unreasonable. What is more, it seems to me that the acceptance of scientific statements in no way compels one to accept the doctrine of physicalism one can, without any conflict, accept all the claims of contemporary science and at the same time reject physicalism. The fact that many philosophers are inclined to think that science itself somehow forces us to accept physicalism merely indicates that they are placing themselves on the grounds of faith.

Causal Closure and Overdetermination

The exclusion argument, which has had an outstanding career in the philosophy of mind (see: Kim 1993), is based on the principle of causal closure of the physical domain, widely accepted by physicalists. This principle has been variously spelled out, and in many versions, differing both in the used terminology and in modal strength. Philosophers have put a lot of effort into developing a version of it which would be

acceptable to both physicalists and their opponents (cf. e.g. Montero 2003; Lowe 2000; Papineau 2009; Gibb 2015a). These efforts are insofar understandable as all parties to the debate are completely aware of the fact that a too strong formulation of the principle immediately results, without any additional inference, in a question-begging way, in the rejection of dualism,³ whereas a too weak formulation of it deprives physicalism of the possibility to carry out the intended argumentation in a fully compelling way. However, the overall idea behind this principle remains the same; it is the belief that physical reality is causally closed, in other words, a relation of causation will never lead us out of the physical realm. Put a little more technically, the belief comes down to the following assertion: At every time at which a physical event has a cause, it also has a sufficient physical cause (if we take any physical event at any time t, there is always a physical event in a different time t' such that it is a sufficient cause of the former).

What is the status of this claim? Well, first of all, it does not seem to be completely justified (for critical analyses cf. e.g. Bishop 2006; von Wachter 2006; Vincente 2009; BonJour 2010: 5–6; Garcia 2014; Tiehen 2015). If this claim uses a general quantifier (and it does, I think), then there are reasons not to consider it unproblematically true. Indeed, it is sufficient to point to an example of spontaneous nuclear decay for which it is difficult to find any sufficient

³ For more on attempts to defend dualism even in the face of the acceptance of a relatively strong version of the discussed principle see, e.g., Gibb (2013 and 2015*b*); Lowe (1999 and 2000). It would be appropriate to emphasise here that Gibb's and Lowe's strategies are completely different from each other.

physical cause. Naturally, the fact that we have so far not been able to find a physical cause does not mean that it does not exist at all, but in the face of an absence of knowledge in this regard it is reasonable to raise doubts in relation to the universal truth of the discussed principle. For someone might well reason as follows: from the fact that each event has a sufficient cause, and that some physical events do not have a sufficient physical cause, it follows that a some physical event has a sufficient cause which is not physical (more on this argument cf. Meixner 2014: 26-30). The belief that the principle of causal closure is true and wellfounded is rather an overstatement – at best it is a manifestation of so far unfulfilled philosophical hopes.

The principle of the conservation of energy, also invoked by physicalists in this context, does not work in accordance with their expectations, either (cf. e.g. Montero 2006; Collins 2008). According to this principle, the total amount of physical energy remains constant in a closed system - that is in a system that is isolated from the environment. In the case of mental causation, however, the question immediately arises which isolated system physicalists have in mind while questioning dualistic interpretation. For obvious reasons, it cannot be a human body or a human brain. The only sensible interpretation would be the claim that mental causation of the dualist kind would change the total amount of energy in the whole physical world. So, the physical world as a whole is a proper candidate for an isolated system here. But although the notion of an isolated system is an important element of classical thermodynamics and can serve as a useful model approximating many real-world situations, in fact no

experience has been reported of an ideally isolated system. In this sense the notion of an isolated system seems to be a useful idealisation. If this is so, then the claim that the (expanding) universe as a whole is an isolated system should rather be interpreted as a physicalistic postulate and not as an empirically justified claim. These facts, however, do not prevent physicalist from using fervently the principle of causal closure and the principle of the conservation of total energy in their argumentative practice. Yet common sense tells us that it would be better to refrain from making use of it.

Somewhat the same applies to the principle of no-overdetermination. This principle is very often accompanied by the principle of causal closure in anti-dualistic arguments. It says, roughly, that physical events are not systematically overdetermined by two or more events as distinct and mutually independent sufficient causes. This principle is supposed, it seems, to serve as a means to exclude "redundant" causes in a causal explanation. It is prima facie puzzling why this principle is so important, given the fact that no one actually disputes occurrences of overdetermination in the world. The thing that worries thinkers who accept that principle is not, I believe, the very exemplification of the relation of overdetermination, but rather the possibility of its systematic exemplification.⁴ The only thing that comes to my mind here as an explanation of the reluctance on the side of physicalists to accept systematic overdetermination is the idea that if systematic

⁴ More information on the acceptability of systematic overdetermination with respect to mental causation and on the problems connected with this issue can be found, e.g., in Mills (1996 and 1997), Marras (2007), Kroedel (2008; 2015), Carey (2010) and Roche (2014).

overdetermination in fact occurred in the world, it would have to be reflected, in some way or other, in some of our known laws of nature. It is for them difficult to believe that this type of regular correlation does not have an adequate scientific representation; for physicalists, correlation without nomological representation is not acceptable. Is it true, however, that there is no evidence of the existence of systematic overdetermination? Rather than entering into the argumentative intricacies here (leaving aside, e.g., the question of whether in the case of mental causation we can still without any reservation speak of instances of genuine overdetermination), I shall refer only to two possibilities which may somewhat weaken the faith in the absence of systematic overdetermination. Admittedly, they are rather contentious, but perhaps they are worth mentioning, nevertheless. First, there is the possibility that future psychophysical laws may be obtained within neuroscience in which both mental events and their neuronal correlates serve as simultaneous and sufficient causes of behaviour, and second, the possibility that at least some scientific theories in special sciences are not reducible to certain theories. of fundamental science. As for the latter possibility, it is standardly accepted, with regard to the theories at different levels that the causes of certain phenomena at one level are regularly accompanied by the causes at a different level (without calling into question, in both cases, the causal power of the identified causal relata).

Methodological Dualism

There is a quite interesting fact concerning the subject of research in cognitive sciences. Representatives of the sciences of the mind are accustomed to treat mental states and events as if they were not reducible to neurophysiological states - ignoring, as it were, the basic dispute between physicalists and their opponents. It turns out that the representatives of neuroscience or psychology, in observing and describing behaviour, including linguistic behaviour, are not so much interested in the behavioural connections, or solely in neurophysiological factors responsible for triggering them, but rather are keen on seeking to deliver a systematic generalization of regularities between conscious, intentional mental states and their neurophysiological correlates. For both behavioural states and neural correlates are for them only insofar interesting as they are able to be linked to conscious states - in other words, as long as they express something that transcends them. If conscious states were simply interpreted as neural states, then they would lose their original attractiveness for researchers. This attractiveness, however, continues precisely because of the methodological distinction between states of consciousness and their neuronal correlates. Representatives of neuroscience are not interested, contrary to the opinion of some philosophers, interested in merely delivering any alternative description of the same reality, i.e. of the linguistic processing of "folk psychology", within the conceptual framework of neurophysiology. The chief aim of these sciences is neither a reformatory translation of the current discourse on the mind, nor a reidentification of conscious states as neuronal states; it is rather, to find systematic correlations of conscious states with neuronal states and an adequate explanation of the former in terms of the latter. However, an explanation is by no means an identification; it is only, as it

were, an invitation to identification, which, however, must be carried out separately. What is more, psychologists, neuroscientists and cognitive scientists perform their research work regardless of whether anyone of them has carried out a reduction or not. A rejection of reduction at this stage does not interfere with research - on the contrary, it is something very natural and desirable. Conversely, the acceptance of reductionism deprives research efforts in these sciences of their original intellectual attractiveness: they are attractive as long as mental states are treated as if they were not neuronal states. It seems, moreover, that even in explanatory procedures methodological dualism must be endorsed to a certain extent, as long as there is still a desire to connect neurophysiological or cognitive explanations with conscious states that are phenomenologically identifiable on the basis of ordinary language. Breaking the ties between neurophysiological explanation on the one hand, and professional phenomenological as well as ordinary description of conscious states on the other, would lead to a renunciation of the original explanatory purpose, that is, of an explanation of behaviour both in terms of neuronal states and of what is colloquially and introspectively identified as mental states.

Of course, this methodological dualism is neither dualism in the ontological sense, nor is it a position that speaks directly against ontological physicalism (although it speaks against methodological physicalism). It indicates, however, that neither ontological physicalism, nor psychophysical dualism interfere with the scientific practice of neuroscience, cognitive sciences and psychology. Formulating hypotheses, carrying out experimental procedures, delivering

descriptions, explanations and predictions within those disciplines is independent of metaphysical decisions. Methodological dualism is, though not in the logical sense, a derivative of psychophysical dualism, and its presence in the sciences of the mind is for dualists a symptom of the validity of their ontological position. Nevertheless, it cannot be directly used in any argument in favour of ontological dualism. One has to take into account the fact that scientific research of the mind is relatively independent of ontological decisions, and that a metaphysical interpretation of the mind in the light of the dualistic approach is admissible and coherent (cf. Meixner 2004: 263-267).

In Favour of Anti-Physicalism

A very wide range of older as well as quite contemporary arguments in favour of both physicalism and dualism can be found in the philosophical literature. The overwhelming number of these arguments is well known – almost all of them have received well-deserved, painstaking critical analyses, defences and counterarguments. Nowadays, one looks with a rather critical eve on both the Cartesian argument, which is purely modal in character and involves a controversial entailment of metaphysical possibility from conceivability (see e.g. Dagys 2012), and Kim's argument from causal exclusion, which makes a questionable use of the principle of causal closure and of a prohibition of systematic overdetermination. I am neither going to repeat these well-known arguments here nor to present some refreshed version of them it would be completely unnecessary and rather unconvincing. Instead of this, I shall present some lesser-known arguments for anti-physicalism (and thus against accepting physicalism), without arguing positively for dualism.

It is an indisputable fact that the majority of thinkers professionally engaged in the philosophy of mind subscribes to one or another variant of physicalism: physicalism has become today practically the default position in philosophy, while dualism has been relegated to a group of doctrines whose value is only historical. However, dualism is not, contrary to popular opinion and despite the current philosophical trend, a position that should be treated as being dead intellectually. As long as dualism has any arguments in its favour and there still is something to be said against physicalism, psychophysical dualism should not be sent off to a philosophical junk room.

In accordance with the intention expressed at the beginning of this paper I would now like to present, in a fairly concise and schematic form, some arguments against physicalism which, first, are less known in the philosophical literature, and second, are not so much arguments in favour of dualism, but rather are arguments for a weaker position: anti-physicalism. Indeed, it should be remembered that no anti-physicalist argument is automatically an argument for dualism; it is not such an argument without additional premises. Due to lack of space, I shall formulate these arguments without any detailed comments on, and scrutiny of, the separate premises, leaving them to be evaluated by the reader. Finally, I think that these arguments are worth presenting - even if only as an indication of a desire for an intellectual balance between competing positions. As a formality, let me add that I am not the author of these arguments to the full extent; having extracted them both from the texts of other authors and from my own papers, I appropriately adjusted and slightly changed them for the purposes of this text.

The argument from rational justification. (P1) If physicalism were true, then every instance of reasoning would be a transition from one state of the brain to another on the basis of causal laws. (P2) If, however, each case of reasoning consisted in the transition from one state of the brain to another on the basis of causal laws, then those states would possess causal powers only because of their purely physical properties (and not because of the meaning or content which might be associated with them). (P3) But if these states had causal powers solely by virtue of their purely physical properties (and not because of the meaning or content which might be associated with them), then there would be nothing within the domain of reasonable beliefs which could serve as a rational justification of one belief by another (only neuronal causal relations would determine which belief physically "implies" or entails which). (P4) If, however, there were nothing within the domain of reasonable beliefs which could serve as a rational justification of one belief by another, then no belief would be rationally justified. (P5) And if no belief were rationally justified, then also the doctrine of physicalism would not be rationally justified. Thus, from (P1)-(P5) it follows that (C1) if physicalism were true, it would not be rationally justified. Therefore, (C2) either physicalism is not true or it is not rationally justified.

The argument from the lack of causal explanation. (P1) If physicalism were true, then there would be a purely physicalist non-circular causal explanation of intentionality. (P2) If there were a purely physicalist non-circular causal explanation of intentionality, then it would be possible - within appropriate causal sequences - to identify, without any reference to the representational character of mental states, both some specific determinate physical causes as that which is being represented (as the "starting points" of the relevant causal chains) and some corresponding specific determinate physical effects as that which does the representing (as the "end points" of the causal chain). (P3) However, any such indication - within the relevant causal sequence - both of the pertinent physical phenomena as represented, and of the pertinent physical phenomena as representing, is itself dependent upon the representational character of mental states. Thus, from (P2) and (P3), it follows that (P4) there is no purely physicalist, noncircular, causal explanation of intentionality. Therefore, from (P1) and (P4) we obtain the conclusion(C) Physicalism is false.⁵

The argument from ignorance. (P1) If physicalism were true, then the principle of causal closure would be true as well (in other words, physicalism would entail the causal closure principle). From (P1) we obtain the claim (P2) If we knew that physicalism is true, then we would also know that the principle of causal closure is true. But (P3) we do not know whether the principle of causal closure is true.⁶ From (P2) and (P3) it follows that (C) we do not know whether physicalism is true.

A version of the modal argument. (P1) If physicalism were true, I would be identical with my body. (P2) If I were identical with my body. I would be a completely physical object. (P3) If I were a completely physical object, I would be a completely physical object necessarily. (P4) If I were a completely physical object necessarily, I would be a completely physical object in every possible world in which I exist. (P5) There is a possible world w in which I exist, and in which I am not a completely physical object. From (P5) it follows that (C1) I am not a completely physical object in every possible world in which I exist, and hence - on the basis of (C1) and (P4)–(C2) I am not a completely physical object necessarily. By (C2) and (P3) we obtain that (C3) I am not a completely physical object. From this and (P2) it follows that (C4) I am not identical with my body (indeed, my body is a completely physical object – of necessity and in every possible world). Therefore, on the basis of (C4) and (P1), (C5) physicalism is not true (cf. Meixner 2004: 86-90).

The argument from personal identity. (P1) If physicalism were true, then I would be identical both with my body at time t_1 , and with my body at time t_2 , different from t_1 . (P2) If I were both identical with my body at time t_1 , and identical with my body at time t_2 , different from t_1 , then my body at time t_2 , different from t_1 , then my body at time t_2 . (P3) Nevertheless, my body at time t_2 . If my body at time t_1 is not identical with my body at time t_1 is not identical with my body at time t_1 is not identical with my body at time t_1 is not identical with my body at time t_2 . If my body at time t_1 is not identical with my body at time t_2 .

⁵ For more on the first and the second argument see Grygianiec (2015).

⁶ We can accept this premise on the basis of Meixner causal argument – see Meixner (2014: 26–30). The acceptance of both the principle of sufficient cause (*i.e.* the claim that *every event has a sufficient cause*) and the claim that there are some completely physical events that have no completely physical sufficient cause (e.g. spontaneous radioactive decay) calls into question confidence in the principle of causal closure. I hasten to add that Meixner's own argument has the much stronger

conclusion, namely that *some completely physical event has a sufficient cause that is not completely physical* (which is a straightforward denial of physicalism).

time t_2 , I cannot be both identical with my body at time t_1 , and identical with my body at time t_2 , different from t_1 . Therefore, by (P3) and (P2), (C1) I am not identical with my body at time t_1 , and identical with my body at time t_2 , different from t_1 , and therefore, by (C1) and (P1), (C2) physicalism is not true (cf. Grygianiec 2008).

Conclusion

In the paper I have tried to spell out the reasons for my anti-physicalist beliefs. My reservation towards physicalism is not directly motivated by any dualistic sympathies, though, as it has already been admitted earlier, I accept a certain version of property dualism. Rather, my reluctance

to physicalism is motivated by the fact that the common approval for this position among philosophers sometimes leads to a widespread ignorance of its theoretical difficulties. This ignorance has assumed the proportions of a canon of behaviour among contemporary analytic thinkers. Naturally, such a situation raises resistance and suspicion. The serious reasons weigh in favour of physicalism, but it should be kept in mind that physicalism is still only a metaphysical position and that like everything else under the sun it is far from being perfect. The belief that physicalism is "the last word" in the intellectual history of mankind seems simply unbecoming for a philosopher.

REFERENCES

Augustynek, Z. 1996. Wersje materializmu. In J. J. Jadacki, T. Bigaj, A. Lissowska (red.), *Co istnieje? Co istnieje? Antologia tekstów ontologicznych z komentarzami*, t. II. Warszawa: Petit, pp. 29–36.

Bishop, R. C. 2006. The Hidden Premiss in the Causal Argument for Physicalism. *Analysis* 66: 44–52.

Bokulich, P. 2011. Hempel's Dilemma and Domains of Physics. *Analysis* 71: 646–651.

BonJour, L. 2010. Against Materialism. In R. C. Koons, G. Bealer (eds.), *The Waning of Materialism*. Oxford: Oxford University Press, pp. 3–23.

Carey, B. 2010. Overdetermination and the Exclusion Problem. *Australasian Journal of Philosophy* 89: 251–262.

Collins, R. 2008. Modern Physics and the Energy Conservation Objection to Mind-Body Dualism. *The American Philosophical Quarterly* 45: 31–42.

Crane, T.; Mellor, D. H. 1990. There is no Question of Physicalism. *Mind* 99: 185–206.

Crook, S.; Gillett, C. 2001. Why Physics Alone Cannot Define the 'Physical': Materialism, Metaphysics, and the Formulation of Physicalism. *Canadian Journal of Philosophy* 31: 333–360.

Dagys, J. 2007. Pareitis, fizikalistinė redukcija ir perkeistos kokybės. *Problemos* 71: 108–116.

Dagys, J. 2012. Šiuolaikinė psichofizinio reduk-

tyvizmo ir antireduktyvizmo polemika ir jos metodologinės išdavos. *Problemos* priedas: 22–36.

Dagys, J.; Dranseika, V.; Grenda, V.; Vasilionytė, I. 2014. Reduktyvizmo raiška šiuolaikinėje analitinėje filosofijoje. *Problemos* 85: 141–152.

Davidson, D. 2001. Mental Events. In D. Davidson. *Essays on Actions and Events*. Oxford: Clarendon Press, pp. 207–225.

Garcia, R. 2014. Closing in on Causal Closure. *Journal of Consciousness Studies* 21: 96–109.

Gibb, S. C. 2015a. The Causal Closure Principle. *The Philosophical Quarterly* 65: 626–647.

Gibb, S. C. 2015b. Defending Dualism. Proceedings of the Aristotelian Society CXV: 131–146.

Gibb, S. C. 2013. Mental Causation and Double Prevention. In S. C. Gibb, E. J. Lowe, R. D. Ingthorsson (eds.), *Mental Causation and Ontology*. Oxford: Oxford University Press, p. 193–214.

Grygianiec, M. 2008. Personal Identity Through Time: Some Consequences of Essentialism. In A. Brożek (red.). *Logic, Methodology and Philosophy of Science at Warsaw University*. T. III. Warszawa: Semper, pp. 61–67.

Grygianiec, M. 2015. Zwei Poppersche Herausforderungen für den Materialismus [in preparation]. Hempel, C. G. 1980. Comments On Goodman's Ways Of Worldmaking. *Synthese* 45: 193–199.

Kim, J. 1993. The Nonreductivist's Troubles with Mental Causation. In J. Heil, A. Mele (ed.), *Mental*

Causation. Oxford: Clarendon Press, pp. 189-210.

Kroedel, T. 2008. Mental Causation as Multiple Causation. *Philosophical Studies* 139: 125–143.

Kroedel, T. 2015. Dualist Mental Causation and the Exclusion Problem. *Noûs* 49: 357–375.

Lowe, E. J. 1999. Self, Agency and Mental Causation. *Journal of Consciousness Studies* 6: 225–239.

Lowe, E. J. 2000. Causal Closure Principles and Emergentism. *Philosophy* 75: 571–586.

Markosian, N. 2000. What Are Physical Objects? *Philosophy and Phenomenological Research* 61: 375–395.

Marras, A. 2007. Kim's Supervenience Argument and Nonreductive Physicalism. *Erkenntnis* 66: 305–327.

Meixner, U. 2004. *The Two Sides of Being. A Reassessment of Psycho-Physical Dualism*, Paderborn: mentis.

Meixner, U. 2014. Against Physicalism. In A. Lavazza, H. Robinson (eds.), *Contemporary Dualism. A Defense*. London: Routledge, pp. 17–34.

Melnyk, A. 1997. How to Keep the 'Physical' in Physicalism. *The Journal of Philosophy* 94: 622–637.

Melnyk, A. 2003. *A Physicalist Manifesto. Thoroughly Modern Materialism.* Cambridge: Cambridge University Press.

Mills, E. 1997. Interactionism and Physicality. *Ratio* 10: 169–183.

Mills, E. 1996. Interactionism and Overdetermination. *American Philosophical Quarterly* 33: 105–117. Misiek, J. 1996. O pojęciu materii. In J.J. Jadacki, T. Bigaj, A. Lissowska (red.). *Co istnieje? Co istnieje? Antologia tekstów ontologicznych z komentarzami*. t. II, Warszawa: Petit, pp. 25–28.

Montero, B. 2003. Varieties of Causal Closure. In S. Walter, H.-D. Heckmann (eds.), *Physicalism and Mental Causation*. Exeter: Imprint Academic, pp. 173–187.

Montero, B.; Papineau, D. 2005. A Defense of the *Via Negativa* Argument for Physicalism. *Analysis* 65: 233–237.

Montero, B. 2006. What Does the Conservation of Energy Have to Do with Physicalism. *Dialectica* 60: 383–396.

Ney, A. 2008. Physicalism as An Attitude. *Philosophical Studies* 138: 1–15.

Papineau, D. 2009. The Causal Closure of the Physical and Naturalism. In B. McLaughlin, A. Beckermann, S. Walter (eds.), *The Oxford Handbook of Philosophy of Mind*. Oxford: Oxford University Press, pp. 53–65.

Roche, M. 2014. Causal Overdetermination and Kim's Exclusion Argument. *Philosophia* 42: 809–826.

Stoljar, D. 2010. *Physicalism*. London: Routledge. Tiehen, J. 2015. Explaining Causal Closure. *Philosophical Studies* 172: 2405–2425.

Vicente, A. 2006. On the Causal Completeness of Physics. *International Studies in the Philosophy* of Science 20: 149–171.

von Wachter, D. 2006. Why the Argument from Causal Closure against the Existence of Immaterial Things is Bad. In H. J. Koskinen, R. Vilkko and S. Philström (eds.), *Science – A Challenge to Philosophy*? Frankfurt/M.: Peter Lang, pp. 113–124.

Wilson, J. 2006. On Characterizing the Physical. *Philosophical Studies* 131: 61–99.

ŽINGSNIAI LINK ANTIFIZIKALIZMO

Mariusz Grigianiec

Santrauka. Ontologinis fizikalizmas yra tezė, kad visi egzistuojantys objektai – individai, savybės, įvykiai, būsenos – yra tik fiziniai esiniai. Dažnai teigiama, jog šią doktriną labai stipriai remia šiuolaikinis mokslas. Fizikalistai, be kita ko, dažniausiai įsitikinę, kad jų metafizinę doktriną logiškai tiesiogiai galima išvesti iš pačių mokslinių teorijų. Negana to, jie yra linkę teigti, kad ir kiti jų filosofinio požiūrio elementai, to-kie kaip fizinės plotmės priežastinio uždarumo principas ar neperteklinio priežastinio sąlygojimo taisyklė (*the no-overdetermination rule*), taip pat tiesiogiai išplaukia iš mokslinių teorijų. Savo tekste pateikiu kai kuriuos argumentus už antifizikalizmą, pagal kurį ontologinis fizikalizmas yra neteisingas, o jo pagrindimas atrodo ne toks optimistiškas, kaip fizikalistai yra įpratę manyti. Mano argumentai kvestionuoja labai paplitusią nuomonę apie fizinės srities kauzalinio uždarumo principo teisingumą ir negalimybę jo panaudoti bet kurioje

antidualistinėje argumentacijoje. Taip pat išreiškiu tam tikrą skepticizmą dėl energijos tvermės ir virsmo dėsnio bei neperteklinio priežastinio sąlygojimo taisyklės kaip fizikalistų argumentavimo strategijų priemonių. Paskui kaip antifizikalinės metodologijos iliustraciją apibūdinu metodologinį dualizmą – tipišką metodologinį požiūrį, visuotinai priimtą kognityvinių mokslų, neuromokslų ir psichologijos. Pabaigoje trumpai ir schemiškai pristatau penkis pavyzdinius argumentus prieš fizikalizmą. Bendrasis šio teksto tikslas – parodyti, kad fizikalizmas, nors ir didžiai populiarus tarp šiuolaikinių filosofų ir vis dar gali girtis moksliniu palaikymu, iš tikrųjų turi grumtis su daugeliu teorinių keblumų, kuriuos fizikalistai ilgainiui įpratę ignoruoti. Nors aš nepristatau jokio pozityvaus argumento už patį dualizmą, mano pastangos vis dėlto gali būti interpretuojamos kaip netiesioginė argumentacija už kiekvieną pažiūrą, kuri oponuoja fizikalizmui.

Pagrindiniai žodžiai: fizikalizmas, kauzalinis uždarumas, neperteklinis apibrėžtumas, fizinis, dualizmas

Įteikta 2015 m. lapkričio 18 d.