teorema
Vol. XXXIV/3, 2015, pp. 123-139
ISSN: 0210-1602
[BIBLID 0210-1602 (2015) 34:3; pp. 123-139]

Physicalism's Epistemological Incompatibility with A Priori Knowledge

Matthew Owen

RESUMEN

El objetivo de este trabajo es demostrar que el fisicismo y el conocimiento *a priori* son epistemológicamente incongruentes. Se considerará la posibilidad del conocimiento *a priori* del fisicismo a la luz de las ideas de Edmund Gettier respecto al conocimiento. Se mostrará que el fisicismo implica una incongruencia inevitable entre las creencias *a priori* y aquello que las justifica, y por lo tanto impide la posibilidad del conocimiento *a priori*. Por ende, el conocimiento *a priori* y el fisicismo son epistemológicamente incongruentes.

PALABRAS CLAVE: *fisicismo, Gettier,* a priori.

ABSTRACT

The aim of the present work is to demonstrate that physicalism and a priori knowledge are epistemologically incompatible. The possibility of a priori knowledge on physicalism will be considered in the light of Edmund Gettier's insight regarding knowledge. In the end, it becomes apparent that physicalism entails an unavoidable disconnect between a priori beliefs and their justificatory grounds; thus precluding the possibility of a priori knowledge. Consequently, a priori knowledge and physicalism are epistemologically incompatible.

KEYWORDS: *Physicalism, Gettier, A Priori.*

I. INTRODUCTION[1]

> The possibility of human knowledge presupposes the reality of mental causation… reasoning, by which we acquire new knowledge and belief from the existing fund of what we already know or believe, involves the causation of new belief by older belief; more generally, causation arguably is essential to the transmission of evidential groundedness.
>
> JAEGWON KIM (2000), p. 31

There is nothing new under the sun. The following argument is not new. Decades ago, C.S. Lewis and G.E.M. Anscombe debated the gen-

eral idea. It was then said that Lewis's argument from reason must be turned into "a rigorous analytic one" [Anscombe (1981), p. 231] to be successful. What follows is a version, perhaps a more rigorous analytic version, of that old argument from reason applied to physicalism in the light of Edmund Gettier's insight regarding knowledge. My aim is to show that a priori knowledge and physicalism are epistemologically incompatible. Given this, it would follow that if physicalism is true, then we cannot have a priori knowledge; or if we can have a priori knowledge, physicalism is false.

I will attempt to accomplish this aim as follows: First, the process of arriving at a priori knowledge will be considered. Second, Gettier's insight will be recalled and applied. Third, physicalism's causal exclusion problem will be explicated. Fourth, the details of how the causal exclusion problem undermines the possibility of a priori knowledge will be discussed. Fifth, two reductive physicalist attempts to preserve mental causation will be analyzed and shown to fall short of preserving the possibility of a priori knowledge on physicalism. At this point it will become apparent that the preservation of mental causation on reductive physicalist accounts does not entail the preservation of, or the possibility of, a priori knowledge. In other words, even if particular versions of reductive physicalism can account for mental causation, the conclusion that a priori knowledge and physicalism are incompatible still follows.

Physicalism

What is meant by 'physicalism'?[2] For our purposes we simply need a working definition. Therefore, let us settle for such and leave the details for concerned physicalist to canonize. According to *The Cambridge Dictionary of Philosophy*:

> Physicalism in the widest sense of the term, [is] materialism applied to the question of the nature of mind. So construed, physicalism is the thesis – call it ontological physicalism – that whatever exists or occurs is ultimately constituted out of physical entities [Shoemaker (1995), p. 617].

There is both reductive and nonreductive physicalism. According to nonreductive physicalism, the "psychological properties of a system are distinct from, and irreducible to, its physical properties" [Kim (2011), p. 13]. According to reductive physicalism, "Psychological properties (or kinds, types) are reducible to physical properties (kinds, types). That is, psychological properties and kinds are physical properties and kinds"

[Kim, p. 14]. My argument will apply to reductive and nonreductive physicalism.

II. A PRIORI KNOWLEDGE

There is much debate surrounding a priori knowledge. In this paper my primary aim is not to defend the legitimacy of a priori knowledge, any particular characterization of it, or any pronunciation of it. My aim is to show that a priori knowledge, if there is such knowledge, is inconsistent with physicalism. Therefore, here too, a basic conception will suit our purposes.

In *Metaphysics: the Key Concepts*, a priori knowledge is depicted as knowledge arrived at through reasoning: "For example, one can prove that there are infinitely many prime numbers by deriving it from some basic mathematical and logical principles, themselves knowable a priori" [Beebee, Effingham, and Goff (2011), p. 10]. When discussing the 'knowledge of reasoning' in *Theory of Knowledge* Roderick Chisholm describes a priori knowledge as follows:

> Once we have acquired some concepts…we will also be in a position to know just what it is for a proposition or state of affairs to be necessary – to be necessarily such that it is true or necessarily such that it obtains. Then, by contemplating or reflecting upon certain propositions or states of affairs, we will be able to see that they are necessary. This kind of knowledge has traditionally been called a priori… [Chisholm (1977), p. 40].

On the basis of accurate concepts, true propositions, and logical entailments one can arrive at a priori knowledge.

Let us consider what will serve as our paradigm example of a priori knowledge. Consider a curious child named Lacey who is studying two dimensional shapes. She already knows what a square and a triangle are, but wonders whether there are such things as 'square triangles.' Let us suppose that Lacey arrives at the conclusion 'there are no square triangles' in the following way. First, she considers that triangles essentially have three, and only three, sides. Second, she recalls that squares essentially have four, and only four, sides. Third, she deduces that it logically follows from the concept of a square and a triangle that a 'square triangle' would have to have four and only four sides to be a square, and three and only three sides in order to be a triangle. Fourth, she realizes a violation of the

law of non-contradiction that the concept of a 'square triangle' entails: a square triangle would necessarily have four sides (as a square) and necessarily not have four sides, but rather only three sides (as a triangle). In the end, the logical incoherence of a 'square triangle' causes her to conclude – there are no square triangles.[3] Thus, the law of non-contradiction plays a key role in producing Lacey's concluding belief.

What matters is that the law of logic, which justifies her belief, played a meaningful role in the production of her belief. In other words, the law of non-contradiction and what it entails regarding square triangles are essential factors in the story of how her belief came about. And while our example has been put in more internalist terms, I think, it will become clear that whether one views the justification (or warrant) condition for knowledge according to an internalist or externalist paradigm the requirement is the same: The epistemic grounds that warrant/justify one's belief and qualify it as knowledge must play a meaningful role in the production of such a belief. When it comes to a priori knowledge, giving a description of precisely how the laws of logic play a meaningful role in the production of a belief is very difficult for any view. Nevertheless, *any view that excludes the possibility of the laws of logic playing a meaningful role in the production of a priori beliefs is incompatible with a priori knowledge*. Reflecting on Gettier's insight about knowledge will help us see why.

III. LESSONS FROM GETTIER

Gettier's counterexamples indicate that justified true belief is insufficient for knowledge.[4] Knowledge also seems to require that a belief, its justification, and its truth be connected.[5] As Robert Koons puts it, "…justified true belief is not enough for knowledge. There must also be a real, non-accidental connection between the belief and the fact believed in" [Koons (2010), p. 287].[6] In the case of a priori knowledge, what provides such a connection is the justification for the belief. Given this, it is critical that the belief itself be properly connected to its justification. Otherwise the justificatory grounds would not connect the belief to the fact believed, for the belief itself would not be connected to its justification. Not only would the belief then be true coincidentally, which was the issue with Gettier's character Smith, but the belief would also be justified coincidentally.

Linda Zagzebski points out that "Gettier cases arise whenever there is a gap between the truth and the other conditions for knowledge" [Zagzebski (1999), p. 104]. While it is true that Gettier problems arise when there is a disconnect between a belief's justification and the truth,[7] such problems also arise if there is a disconnect between a belief and its justification.[8] It is problematic if a belief is true coincidentally, but also if it is justified coincidentally.

If Lacey's concluding belief was justified but not connected to its justificatory grounds that connect her belief to the fact she believes, then her concluding belief would be coincidentally true, but also *coincidentally justified*. In the case that she arrives at the same belief, but in a way that has nothing to do with the justificatory grounds for her belief, she would have a true belief about an a priori truth that is justified. However, the obvious problem would be that the process through which she arrived at her belief (even if you call it a 'reasoning process') includes no meaningful role for the justificatory grounds of her belief in the production of her belief. Consequently, the connection between the belief and its justification is lost, and so it is coincidentally justified. Moreover, with that loss comes the additional loss of connection between the belief and its truth, so it is also coincidentally true.

Let's return to our paradigm example and see if a thought experiment can provide elucidation. Suppose Lacey grows up and goes off to Washington State University for veterinary school. Her first semester at university, she is convinced by her roommate that the law of non-contradiction is nothing more than a figment of her imagination. Because this served as an essential point of justification for her belief and played a key role in the production of her belief that there are no square triangles, she ceases to believe such. She then joins the Square Trianglite campus club of like minded individuals who believe there are square triangles. However, she is a tremendous student in a competitive program and her colleagues get so jealous of her that one night in the vet hospital they hook Lacey up to a machine that sends electrical impulses through her whole body which causes not so serious, but strange brain damage. As a result, whenever her body temperature drops below 37°C her brain chemistry changes to a physical state that causes her to believe 'there are no square triangles.' Thus, now whenever Lacey goes outside in the snow and her body temperature drops below 37°C, physical processes, that in no way justify her belief, occur in her brain and wholly produce in her the belief 'there are no square triangles.' Perhaps, there are physical

processes that would justify her belief, but in Lacey's case the physical processes that produce her belief do not justify her belief.

The difference between Lacey's belief as a child and her belief after the strange brain damage is its production. As a child the law of non-contradiction played an essential role in the production of her belief, and so her belief was connected to this justificatory ground. Post brain damage, her belief is caused by something that does not justify her belief, even though the same justificatory grounds that once played a role in producing her belief still exist. (She no longer believes the law of non-contradiction, yet it still exists.)

In sum, although the same justificatory grounds for her belief post brain damage exist, Lacey's belief is no longer reached on the basis of such grounds and is now completely caused by physical processes that do not provide justification for her belief. Consequently, it seems that post brain damage her belief is *not* knowledge; since it is no longer connected to its justification by the justificatory grounds playing a meaningful role in the production of her belief. Her belief is just coincidentally justified and coincidentally true. What I will now try to show is that if physicalism is true, a priori beliefs cannot be connected to their justificatory grounds, and therefore, will at best be true and justified coincidentally.

IV. The Causal Exclusion Problem

The causal exclusion problem amounts to the mental being causally inefficacious on physicalism. Two tenets that physicalists are committed to which give rise to the causal exclusion problem are 'supervenience' and 'the causal closure of the physical domain.' According to the latter, the causal history of every physical event is purely physical and does not go outside the physical domain. "That is, no causal chain will ever cross the boundary between the physical and the nonphysical" [Kim (2000), p. 40]. Regarding supervenience, Jaegwon Kim states the mind-body supervenience thesis as follows:

> Mental properties supervene on physical properties in the sense that if something instantiates any mental property *M* at *t*, there is a physical base property *P* such that the thing has *P* at *t*, and necessarily anything with *P* at a time has *M* at that time [Kim (2000), p. 39].

The supervenience thesis is thought by many philosophers to entail that the mental properties a thing has are determined by, and depend on, its physical base properties [Kim (2011), p. 12]. This dependence of the mental on the physical is significant because it underscores the "ontological primacy, or priority, of the physical in relation to the mental" [Kim (2011), p. 12].[9]

Some believe that mind-body supervenience (S) saves mental causation, however Kim's "supervenience argument" disproves this hope and reveals the difficulties involved regarding the causal exclusion problem. Therefore, let us consider a summary of this argument.

1) (S) either holds or fails. If it fails there is no clear way to understand the possibility of mental causation [Kim (2000), p. 39].
2) According to (S), the base physical property is necessarily sufficient for the supervenient mental property [Kim (2000), p. 39].
3) According to (S) "the physical determines the mental, and in that sense the mental does not constitute an ontologically independent domain that injects causal influences into the physical domain from outside" [Kim (2000), p. 41].
4) Mental property M necessarily supervenes on physical property P. In order for M to cause M* it must cause P*. M cannot cause P* directly due to the causal closure of the physical domain. M itself supervenes on P and P alone has the causal capability to cause P*. Therefore, M can only supposedly cause P* if its subvenient physical property P causes P*. Yet, in the end P preempts M as the cause of P*. Thus, P causes M* by causing P*, and M does no causing [Kim (2000), pp. 42-43].
5) Thus, the M-to-M* and M-to-P* causal relations are *only apparent*, arising out of a genuine causal process from P to P* [Kim (2000), p. 45].
6) The dilemma: whether (S) succeeds or fails mental causation is unintelligible [Kim (2000), p. 46].

In sum, given supervenience and causal closure, every mental event depends on and is caused by a physical event, and every physical event has a physical cause and a purely physical causal history [Kim (2000), p. 38]. Therefore, mental causation of either a physical state or a mental state is impossible.[10] Thus, all mental properties, mental property instantiations,

and mental states have only physical causes, and only physical properties and physical events play any role in their causal history.

V. The Incompatibility of A Priori Knowledge and Physicalism

Kim has noted that "causation arguably is essential to the transmission of evidential groundedness" [Kim (2000), 31]. Given the assumption that mental causation is essential to the connection of a priori beliefs with their justificatory grounds and the causal exclusion of the mental by the physical that physicalism entails, physicalism seems to face a serious problem regarding mental causation. For if all mental states, and hence all beliefs, have only physical causes and a priori beliefs are justified by nonphysical content (i.e. laws of logic) that must be linked to a priori beliefs via mental causation for those beliefs to be knowledge, then the problem causal exclusion raises for a priori knowledge seems clear. Mental causation cannot connect a priori beliefs with their justificatory grounds and therefore such beliefs are true coincidentally at best.

However, I think there is an additional problem often overlooked. Even if the problem of the causal exclusion of the mental is overcome and the mental regains causal power on a physicalist paradigm, a very similar problem awaits the next step into the analyses of a priori reasoning. The laws of logic that often justify a priori beliefs are nonphysical. Thus according to physicalism they lack causal power, due to the causal closure of the physical domain. Moreover, the mental states that hypothetically regain causal power would still be fully determined by physical causes. Consequently the laws of logic would still lack any meaningful role in the processes that give rise to a priori beliefs on the physicalist paradigm. Perhaps we might loosely put it this way: if the problem of the causal exclusion of the mental is solved, there remains the problem of the exclusion of the laws of logic playing any role in the production of a priori beliefs. As a result, a priori beliefs would lack any relevant connection with such essential justificatory grounds.

Anscombe took Lewis to be claiming that if natural causes "*fully* explain" a man's belief, then "there is no room for the operation of such a cause as *the man's own reasoning*" [Anscombe (1981), p. 228; first italics Anscombe's, second italics mine]. This is not what I am arguing. My main point is not that there is no room for a man's reasoning. Rather my point is: on physicalism there is no room for nonphysical entities (i.e.

laws of logic that provide necessary justification) *in* a man's process of reasoning.[11] The physicalist's story of the production of a priori beliefs excludes the possibility of immaterial laws of logic playing any meaningful role in the reasoning process that produces a priori beliefs. In other words, if physicalism is true, the answer to the question – why does Lacey believe 'there are no square triangles' – could be comprehensively answered with reference to physical laws, physicals entities, physical causes, and physical effects; none of which laws of logic are identical to. This clearly excludes the laws of logic from being involved in the reasoning process, but often times nonphysical logical laws are essential elements in one's process of reasoning.

In summary, one might think that if the mental is reduced to the physical, then mental causation that is capable of connecting a priori beliefs with their nonphysical justificatory grounds can be preserved because the physical has causal power. Yet even if we grant the possibility of such a reduction and the claim that it preserves mental causation, a priori knowledge still will not be preserved. For if the mental states (or events) that cause the a priori beliefs are identical to physical states (or events), then they themselves have purely physical causes and are what they are solely due to their own physical causal history. As a result nonphysical entities such as concepts and laws of logic could play no role in their causal history, and the resultant mental states would be what they are due in no part to such nonphysical entities. Therefore the justificatory grounds for any a priori belief would still play no role in the production of the a priori belief. Such belief would still be the result of purely physical causes that lack the necessary justificatory grounds for the belief. Nonetheless, some might think we can be optimistic about more specified versions of physicalism preserving a priori knowledge. Let us consider two such versions, one that is quite prominent and another that is allegedly quite promising — Realizer Functionalism and Type Eliminativism.

Realizer Functionalism

Realizer functionalism is currently the most prominent type identity theory. On this view mental properties are identified with first-order physical properties that realize the defining causal role of mental properties [Tiehen (2012), p. 223]. This view differs from role functionalism in that it identifies the mental property not with a second-order role, but rather with the first-order realizer of the mental properties' causal role [Tiehen (2012), p. 224]. Let us consider how a realizer functionalist might view a priori knowledge with reference once again to our example

of Lacey forming her a priori belief as a child when she reasoned from the concepts and the logical entailment involved to her conclusion. Let's let (MT) stand for Lacey's mental state that is her understanding of the concept of a triangle, and (MS) stand for her mental state that is her understanding of the concept of a square, and (ML) stand for her mental state that is her understanding of the logical entailments involved, and (MC) stand for her concluding belief that there are no square triangles. The realizer functionalist would simply say that whatever brain states realize the causal roles of MT, MS, and ML are identical to MT, MS, and ML, and these brain states cause whatever brain state realizes the causal role of MC, which MC is identical to. If this account is true, it saves mental causation.

Nevertheless, if the realizer functionalist wishes to remain consistent with orthodox physicalism, then even if her view is successful in preserving mental causation it cannot salvage a priori knowledge. Once again the reason is that given supervenience and the causal closure of the physical domain MT, MS, and ML themselves have a purely physical causal history and are what they are due to this purely physical causal history alone. As a result the nonphysical justificatory grounds of MC, which are the concepts and law of logic involved, play no role in the production of MC, nor the mental states which give rise to it; that is MT, MS, and ML. Thus, the problem remains. Lacey's a priori belief is what it is only due to physical causes which do not justify her conclusion that remains unconnected to its justificatory grounds, and therefore, it is true by happenstance. The only hope at this point is a successful reduction of the laws of logic and concepts to physical entities or events, which is not a hopeful endeavor.

Nonetheless, could the realizer functionalist simply identify laws of logic and concepts with physical realizers of causal roles as they aim to do with mental states, and thus give them causal efficacy? If so, laws of logic and concepts could play a role in the production of a priori beliefs via causation. This would make it possible for such justificatory grounds of a priori beliefs to be connected to a priori beliefs, thus preserving a priori knowledge. Yet, such a reduction of laws of logic would require explaining how any physical realizer (or any physical properties/events, or sets of physical properties/events) could have all, and only, the same properties as logical laws. This would be necessary because according to Leibniz's Law of the indiscernibility of identicals, if a physical entity that is the realizer of a particular law of logic is identical to that logical law the two must have all and only the same properties. However, it seems that

laws of logic are necessary in every possible world, and therefore, a successful reduction of this kind would require that the physical realizers they are identical to be necessary in every possible world. But it doesn't seem that any one physical entity or event is necessary in this way.[12] This is a serious problem that the physicalist must grapple with if she wishes to attempt this route of escape.[13]

In sum, it looks as though preserving a priori knowledge on a realizer functionalist account requires a successful reduction of the laws of logic to physical entities in addition to a successful reduction of the mental. Given that laws of logic and concepts are necessary in a way that physical entities are not, such success looks bleak. Is there another option?

Type Eliminativism

According to Justin Tiehen "…type eliminativism delivers everything we could hope for in an account of mental causation" [Tiehen (2012), p. 226]. The type eliminativist claims that mental properties are causally inert and must be reduced to first-order physical properties, but that first-order physical properties are not identical to mental properties, but rather mental property instantiations [Tiehen (2012), p. 225]. Thus, the mental (that is, mental property instantiations) have causal efficacy because the first-order physical property realizers have causal efficacy, yet mental properties themselves do not exist. Tiehen explains:

> To describe it in overly paradoxical terms, the view…says there are mental property instantiations but no mental properties. The appearance of contradiction is dissolved with a scope distinction. Compare:
>
> (i): (My favorite property) instantiations
>
> (ii): My favorite (property instantiations)
>
> As it turns out, I do not have a favorite property and so (i) fails to refer. Still, I do have certain particular instantiations I like a lot, instantiations that are my favorites. And so, (ii) successfully refers even though (i) fails to do so. On analogy, compare:
>
> (i*): (Mental property) instantiations
>
> (ii*): Mental (property instantiations)
>
> If there are no mental properties… (i*) fails to refer. Again though, (ii*) could successfully refer even while (i*) failed to do so. Certain property instantiations could qualify as mental – as mental (property instantiations) – even if they are instantiations of wholly non-mental properties [Tiehen (2012), p. 225].

It seems that (ii) is a concept and that (ii*) is either a concept or an event. However, it cannot be an event if mental properties do not exist to be instantiated. Furthermore, Tiehen is aiming to put forth a view that Jaegwon Kim originated [Tiehen (2012), p. 224]. And according to Kim mental property talk should be traded in for talk of mental concepts:

> So it is less misleading to speak of second-order descriptions or designators of properties, or second order concepts, than second order properties…When I say, *x* has [mental] property *M*, where "*M*" is a second-order designator (or property, if you insist), "the truth-maker" of this statement is the fact, or state of affairs, that *x* has P1 or P2 or P3, where the Ps [physical properties] are the realizers of *M*…There is no further fact of the matter to the fact that *x* has *M*…[Kim (2000), pp. 104-05].

Both Kim and Tiehen say there are no such things as real mental properties. Yet, they both want to say that there is something mental nevertheless. What motivates this? As Tiehen says, the problem with a thoroughgoing elimination of the mental is that it "would hardly be compatible with a robust account of mental causation…" [Tiehen (2012), p. 224].

Interestingly type eliminativism does not allow the mental to have causal efficacy. According to Tiehen "no view should do that" [Tiehen (2012), p. 227]. On this view, only physical properties have causal efficacy and there are no mental properties. What gives rise to mental property instantiations is not anything mental but physical properties that realize "mental" causal roles.

Tiehen's view is ingenious, but it cannot preserve a priori knowledge. For on this view as well, a priori beliefs have a purely physical causal history, and consequently, nonphysical justificatory grounds of such beliefs play no role in their production. In other words, a priori beliefs are determined solely by physical causes and not at all by nonphysical laws of logic that provide essential justificatory grounds, since such are not physical. Thus, once again, a priori beliefs would lack the necessary connection with their justification. As with realizer functionalism, a successful reduction of the laws of logic still seems to be required to preserve a priori knowledge on type eliminativism.

The final analysis is the same for nonreductive and reductive physicalist accounts, including realizer functionalism and type eliminativism: a priori beliefs are produced solely due to physical causes, and therefore, non-physical justificatory grounds can play no meaningful role in their

production. This leads to an unavoidable disconnect between a priori beliefs and laws of logic that provide necessary justificatory grounds for such beliefs. As a result, if such beliefs are justified they are so *coincidentally*.[14] Thus, such beliefs are not knowledge. It seems that so long as supervenience and the causal closure of the physical domain, two essential tenets of physicalism, are in place the final analyses will be the same unless the laws of logic can be successfully reduced. The prospects of which do not look promising.

Perhaps at this point the physicalist will want to object that the alternative, dualism, fairs no better in describing how nonphysical laws of logic play a causal role in one's process of reasoning. Thus, as the objection goes, dualism would be beset with the same inevitable disconnect between a priori beliefs and their nonphysical justificatory grounds, such as the laws of logic. My response is twofold. First, I am not arguing for dualism. Instead I am simply objecting to the idea that physicalism and a priori knowledge are compatible. My argument is an objection that reveals the cost of a priori knowledge (i.e. physicalism), or the cost of physicalism (i.e. a priori knowledge). Therefore it should be dealt with as an objection to the compatibility of a priori knowledge and physicalism, not as an argument in favor of any particular view.

Second, with the above having been said, perhaps my objection will motivate serious consideration of views that do not have the same doctrinal constraints as physicalism. And being absent of such constraints, other views may be able to connect a priori beliefs with their nonphysical justificatory grounds through some means *other than causation*. Moreover, it may be that if the causal closure of the physical domain is discarded, a whole new world of possibilities opens up. Admittedly, such a brave new world may seem eerie to some:

> I doubt…that contemporary non-reductive physicalist can afford to be so cavalier about the problem of causal closure: to give up this principle is to acknowledge that there can in principle be no complete physical theory of physical phenomena, that theoretical physics, insofar as it aspires to be a complete theory, must cease to be pure physics and invoke irreducibly non-physical causal powers – vital principles, entelechies, psychic energies, élan vital, and whatnot. If that is what you are willing to embrace, why call yourself a 'physicalist'? [Kim (1993), pp. 209-10]

One reason is to be considered a card-carrying member of contemporary philosophical orthodoxy. What I hope to have shown is that such membership entails a price.

In conclusion, it seems that once we grasp the basic concepts of a priori knowledge and physicalism and see what the two entail, we can know *a priori* that the two are incompatible and either physicalism is true and we cannot have a priori knowledge, or physicalism is false and we can have a priori knowledge.

Department of Philosophy
University of Birmingham
Edgbaston, Birmingham, B15 2TT, UK
E-mail: MKO409@bham.ac.uk

NOTES

[1] Given that I have the benefit of standing on the shoulders of R. Scott Smith, J.P. Moreland, and Peggy Burke the present work is far better off than it would otherwise be. Additionally, I received insightful comments from those in attendance at the 2013 Evangelical Philosophical Society Far-West Conference, the 65th Annual Northwest Philosophy Conference, and Talbot Philosophical Society meetings. Specifically I want to thank Trevor Nyman, Adam Omelianchuk, William Lane Craig, Fred Sanders, Greg Ganssle, Duane Morris, and an anonymous reader of an earlier draft for their helpful feedback. I also want to thank Humberto Ojeda for translating my abstract into Spanish. Lastly, I especially want to thank my wife Aryn Owen, my mom Linda Pimley, and my grandmother Kathryn Owen for helpful conversation regarding the overall argument here presented.

[2] I begin with a clarification of basic terms not so much for clarity amongst specialists, but so that specialists in other areas of philosophy and other fields can easily access this debate amongst specialists on this particular topic. This is necessary for the sake of integration between disciplines, which is thoroughly lacking at present.

[3] For our purposes, it need not concern us whether this realization voluntarily produced her belief (as the doxastic voluntarist might say), or involuntarily produced in her the concluding belief (as the doxastic involuntarist would say). For on both accounts, the law of logic would play a role in the production of Lacey's belief, whether or not it is an unavoidable causal role.

[4] Throughout this section I am indebted to an anonymous reader for their insightful feedback on an earlier draft of this paper.

[5] Let '—' represent such a connection and B, J, T, K represent belief, justification, truth and knowledge respectively. So (B—J—T) means that B, J, T are properly connected. We can represent this idea as follows: (B—J—T) → K.

[6] Robert Koons's work 'Epistemological Objections to Materialism' not only predates the present article, but also applies the lessons learned from Gettier's counterexamples to cover far more ground. He argues that materialism has problems with logical knowledge, in addition to our knowledge of laws of nature, ontology of material objects, and mathematics. My own article has benefitted from his work.

[7] Letting '/' represent a disconnect and '—' represent a connection, we could represent this idea as follows: (B—J/ T) → ¬K.

[8] With the stipulations noted above, we could represent this thought as: (B/ J—T) → ¬K.

[9] In comments on an earlier draft of this paper it has been pointed out to me that there is disagreement about whether supervenience itself entails the dependence of the mental on the physical. Certainly someone who believes that there is an immaterial mind that is not identical to the body, which the mind causes to move, would not think the mental necessarily depends on the physical. Rather, such a one might say there is a symmetric supervenience relationship between the mental and the physical. Nonetheless, it seems that given physicalism's view of all reality and it's doctrine of the causal closure of the physical domain, what Kim calls "the dependence thesis" of the mental on the physical, would follow. It has been suggested to me that physicalism is more properly defined as "the conjunction of supervenience plus the dependency of the mental on the physical."

[10] Some have thought that allowing for overdetermination might solve the problem regarding mental-to-mental causation. However, even overdetermination seems impossible given the causal closure of the physical domain and supervenience. For given the former, the mental cannot be a co-cause of a physical property, and given supervenience mental properties are ontologically dependent on the physical and not the mental, but it seems that if overdetermination was permitted then such mental states would be ontologically dependent on the physical *and the mental* cause.

[11] I am indebted to an anonymous reader for their insightful comments that have helped me develop this point.

[12] An anonymous reader has brought the following response to my attention: "The physicalist could perhaps identify the logical facts with physical facts, but with different physical *facts* in different worlds, and even with non-physical facts in worlds containing non-physical entities. Different facts might play the logical 'role' in different worlds." If such a route is to be justified it will need to face three important questions. One, are logical facts identical to laws of logic? The latter will need to be reduced, and it seems the two are not identical; the former follow from the latter. Two, are laws of logic roles in the actual world,

and if not, how can they be identical to roles in other worlds? Three, is not identity trans-world? If so, laws of logic could not be identical to different physical facts in different physical worlds. Consequently, one might prefer to say that a law of logic is identical to a 'role' that is identical to different physical facts in different worlds. But how could a law of logic be identical to physical facts that realize the specific role, and yet be a role that is realized by different physical facts in different worlds? The law of non-contradiction cannot be identical to a particular role and the physical realizers of that role, because the two have different properties. The role, if it is what the law of logic is identical to, would be necessary in every world; the physical realizers of that role would not be.

[13] There may be another related problem lurking in the same neighborhood. Namely, that there are possible worlds where there is nothing physical at all. If the physicalist reduces laws of logic to something physical, what physical entities could the laws be reduced to that exist even in worlds with nothing physical? The physicalist would need an answer because laws of logic are necessary in every possible world, even worlds where there is nothing physical at all.

[14] As mentioned above, this leads to the belief being true coincidentally as well. Admittedly, if one assumes that there is a rational designer of the universe and human beings that transcends the physical world and structured physical causes, or events, or laws, to be correlated with logical entailments, this conclusion may be avoidable. Yet, the existence of such a being would certainly pose a serious problem for physicalism.

REFERENCES

ANSCOMBE, G., (1947) 'A Reply to Mr C.S. Lewis's Argument that "Naturalism" is Self-Refuting', in Anscombe, G., *Metaphysics and the Philosophy of Mind, The Collected Philosophical Papers of G.E.M. Anscombe*, vol. 2, Oxford, Basil Blackwell Publisher, p. 224-232.

BEEBEE, H., EFFINGHAM, N. and GOFF, P. (2011), *Metaphysics: The Key Concept*s, New York, Routledge.

CHISHOLM, R. (1977), *Theory of Knowledge*, Upper Saddle River, New Jersey, Prentice Hall Press.

KIM, J. (1993), 'The Non-Reductivist's Troubles With Mental Causation', in Heil, J. and Mele, A. (eds.), *Mental Causation*, New York, Oxford Press, pp. 189-210.

— (2000), *Mind in a Physical World*, Cambridge, MA, MIT Press.

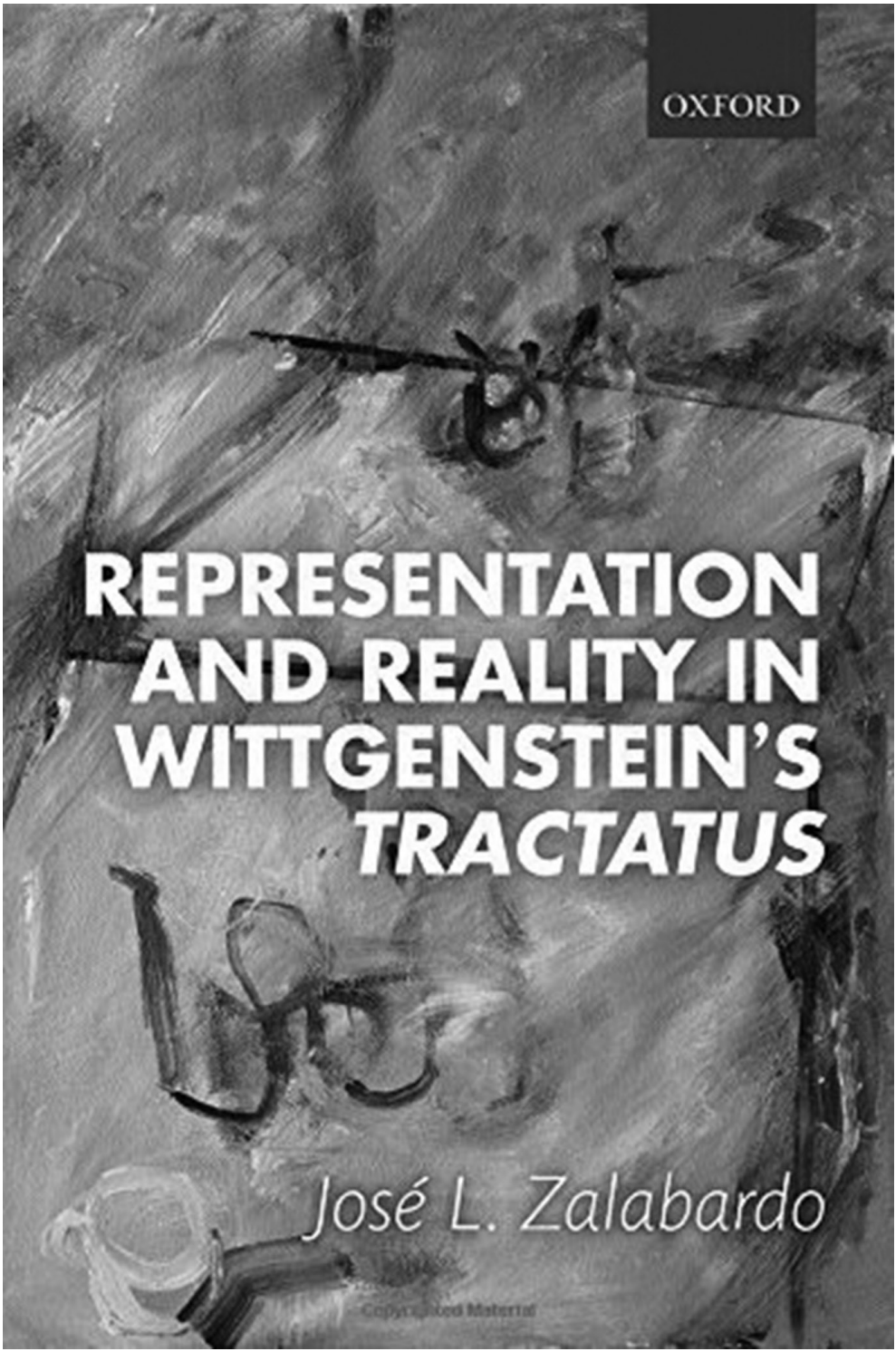
— (2011), *Philosophy of Mind*, Boulder, Colorado, Westview Press.

KOONS, R. (2010), 'Epistemological Objections to Materialism', in Koons, R. and Bealer, G. (eds.), *The Waning of Materialism*, Oxford, Oxford Press, pp. 281-306.

SHOEMAKER, S. (1995), 'Physicalism', in Audi, R. (ed.), *The Cambridge Dictionary of Philosophy*, Cambridge, Cambridge University Press, pp. 617-618.

TIEHEN, J. (2012), 'Psychophysical Reductionism without Type Identities', *American Philosophical Quarterly*, vol. 49, no. 3, pp. 223-236.

ZAGZEBSKI, L. (1999), 'What is Knowledge', in Greco, J. and Sosa, E. (eds.), *The Blackwell Guide to Epistemology*, Malden, Massachusetts, Blackwell Publishing, pp. 92-11.


OXFORD
REPRESENTATION AND REALITY IN WITTGENSTEIN'S TRACTATUS
José L. Zalabardo