A DEFENCE OF COMPATIBILISM AGAINST MOORE'S CRITIQUE

by

Björn Axetorn

University of Gothenburg

1. Introduction

The topic of the current essay is in broad terms The Exclusion Problem and Compatibilism as a way to address it. But more narrowly put, it will concern a recent criticism of compatibilism provided by Dwayne Moore (2012, 2016). Moore's criticism consists of two arguments which I will refer to as "The Epistemological Argument" and "Physical Insufficiency". The former states that compatibilism, or rather its commitment to supervenience, makes it metaphysically impossible to establish the commonly held thesis that all physical effects have sufficient physical causes. I argue that the benefits that come with accepting supervenience outweigh the consequence Moore highlights. And that compatibilism therefore could *bite the bullet* regarding the argument.

It is the latter argument that will be devoted most attention to which, if it is correct, establishes that the compatibilist assumptions are incompatible. More precisely, that the assumed truth of the causal efficacy of mental properties combined with supervenience being the relation between mental and physical properties results in the falsity of the principle stating that all physical effects have sufficient physical causes. I argue against the argument on the grounds that it either utilizes flawed logic or that it only works if one accepts a view of causation where an effect cannot have more than one sufficient cause unless it is genuinely overdetermined. If I am correct regarding the latter, then Moore should provide reasons to accept such a view of causation in order to make his argument forceful.

But before turning to Moore's arguments, some background will be provided. In the second section I will present The Exclusion Problem in a similar manner as Jaegwon Kim does (1998). When doing so, emphasis will be put on the problem of dispensability that Kim invokes as an argument against cases of mental causation being cases of overdetermination. This will be done since it is of most relevance to Moore's critique. I will also present compatibilism of the kind that Karen Bennett advocates (2003). Also here emphasis will be put on how compatibilism handles the dispensability problem. In section three, I will present and argue against Moore's two arguments. In the fourth and final section I will summarize and conclude that Moore's arguments are not, as they stand, forceful enough to question the plausibility of compatibilism.

2. Background: The Exclusion Problem and Compatibilism

Before turning to presenting The Exclusion Problem and Compatibilism, some clarifications regarding the current topic are in order. First, I will throughout the essay speak of mental and physical properties. With mental properties I mean goings on such as *being in pain* and by physical properties I

mean goings on such as *being c-fibers firing.* Second, whether mental/physical goings on are to be considered as properties or event varies in the philosophy of mind debate. By referring to them as properties I am not making any claim regarding whether that is how they should be considered. It is rather since I do not think that the distinction affects the current purposes I will, for simplicities sake, refer to them as properties. Third, the relation between mental and physical properties will throughout the essay be considered to be one of *supervenience*. Since how the notion of supervenience is used in philosophy depends on context; it is important to be clear regarding which sense it is used. By supervenience, I will henceforth mean what I take to be the standard usage for compatibilists. According to compatibilists, such as Karen Bennett, mental properties supervene on physical properties in the sense that whenever a physical subvenient property occurs – so does the mental property that supervenes on it. If the physical property of *being c-fibers firing* is a subvenient of the mental property of *being in pain,* then, whenever the former occurs – so does the latter. The kind of necessity that, on compatibilism, is involved in supervenience is *metaphysical* (Bennett, 2008 p.5). That is to say that there are no possible worlds where some subvenient, such as *being c-fibers firing,* occurs without some supervenient property being instantiated as well, which in this case would be the property of *being in pain.*

Another way to formulate the relation is that the physical subvenient property is co-occurring with the mental supervenient property.[1] In a later section (3) the relation will be described as if the subvenient *necessitates* the supervenient. As in that the supervenient property is instantiated in virtue of the occurrence of the subvenient property. This is a stronger claim than co-occurrence. But, since the difference between co-occurrence and necessitation does not affect the current purposes I will refrain from elaborating further on the matter. The central aspect of supervenience as the notion henceforth will be used is that whenever a subvenient property occurs, then so does the supervenient. Although the above definition of supervenience is not exhaustive, I believe that it captures the aspect of the relation that will be of relevance in what follows. Let us now turn to accounting for The Exclusion Problem.

2.1. The Exclusion Problem

[1] Although not directly relevant to the current purposes, it should be mentioned that the kind of co-occurrence here involved is not according to compatibilism symmetrical. That is, although physical subvenient properties are co-occurring with the mental properties that supervene on them; this does not mean that those kinds of mental properties (such as being in pain) are necessarily co-occurring with their subvenient properties (such as being c-fibers or any other physical property that would instantiate pain). Hence, the metaphysical necessity involved in the compatibilist usage of supervenience is that the physical subvenient properties are co-occurring with the mental properties they instantiate but not the other way around. In other words, mental properties could occur without physical subvenient properties – at least in some possible world. To state otherwise would be to claim that physicalism is necessarily and not contingently true which compatibilism does not want to endorse (Bennett, 2003, p.17).

The Exclusion Problem, roughly put, is supposed to establish that one cannot maintain causal efficiency of mental properties while at the same time maintaining that all physical effects have physical causes. The worry is that if every physical effect has a sufficient physical cause and a distinct mental cause, then cases of mental causation turns out to be cases of overdetermination. And for cases of mental causation to be cases of overdetermination is implausible due to several reasons (Kim, 1998, p.44-45). Therefore, in order to avoid overdetermination in cases of mental causation, one of the principles whose truth results in overdetermination should be denied. The argument has by Jaegwon Kim, who is its chief proponent, been used both as an argument against causal efficiency of mental properties (Kim, 1998, p.45) and against non-identity between mental and physical properties (2005, p.125). Now, let us turn to the problem in more detail and begin by presenting the principles that give rise to it:

> [Mental Causation] – Some physical effects have sufficient mental causes [2]
>
> [Causal Closure] – All physical effects has sufficient physical causes
>
> [Irreducibility] – Mental supervenient properties are not identical to their physical subvenient properties [3]

Anyone who maintains the truth of these principles is committed to the following view of cases of mental causation: both subvenient physical properties and supervenient mental properties are sufficient for their effects; and furthermore, the physical and the mental properties are not identical. Let us clarify by considering a case of mental causation. Consider the physical property of *being c-fibers firing*; and consider the mental property of *being in pain* and that the latter is supervenient on the former. Furthermore, consider the physical property of *displaying pain behavior.* If the above three principles are true, then, both *being c-fibers firing* and *being in pain* are sufficient causes of the effect that is the property of *displaying pain behavior.* And furthermore, that the properties are not identical which makes it the case that the effect has two sufficient causes.

It is the above view of mental causation that generates the problem. In order to see why; let us briefly elaborate on the notion of sufficiency. [4] If a cause, say x, is causally sufficient for an effect, say z, then, x by itself is capable of bringing about z. That is to say that x, without the causal participation of anything else, is capable of bringing about z. (Kim, 1998, p.44)

---

[2] By some physical effects it is meant such effects that are regularly attributed to mental causes. Such as displaying some behavior that implies that one is in pain. Hence, the physical effects in mind are not trees falling and things of the like.

[3] It should here be mentioned that this does not exclude the possibility of mental properties being identical to any physical properties. It only states that mental properties are not identical to their subvenient properties. Among those who have argued that mental properties are identical to physical properties are Karen Bennett (2008).

[4] It should be mentioned that this is not meant to be an exhaustive elaboration of causal sufficiency; but only one that suffices for the present purposes of presenting the problem.

On the above view of mental causation, then, both the physical (c-fibers firing) and the mental property (being in pain) are by themselves capable of bringing about the effect (displaying pain behavior). A case where an effect has more than one sufficient cause is typically considered to be a case of *overdetermination*. However, for cases of mental causation to be cases of overdetermination is according to Kim implausible or even "not possible" (Kim, 1998, p.44). Before we proceed to why it would be implausible, let us elaborate on the phenomenon of overdetermination by way of considering a paradigmatic case of it - the firing-squad example:

> Imagine a death-sentenced convict about to be executed; the execution is to be performed by two gunmen who are instructed to shoot the convict simultaneously when given the order. Now, imagine that the order is given and both gunmen fires, resulting in the death of the convict. Each bullet would have sufficed for causing the convicts death which makes the death of the convict have two sufficient causes – thereby rendering it overdetermined.

The death of the convict is overly caused. If either of the gunmen were to fire without the other; the convict would still die. As is the case with the gunmen with regard to their sufficiency, so is the case with mental and physical properties - at least given the truth of "Mental Causation" and "Causal Closure".

Kim provides three arguments against overdetermination occurring in cases of mental causation (Kim, 1998, 44-45). I will discuss the one that is of most relevance to the current essay which is the problem of dispensability of mental properties.[5] The problem goes as follows: in cases of overdetermination, both causes suffice to bring about the effect. Since either, without the other, would bring about the effect, then, neither is necessary for the effect to occur (as long as the other occurs). Therefore, as long as one of the causes occurs, the other is not needed for the effect to occur which makes it dispensable. And dispensable in the sense of *not needed* for the effect to occur.

In relation to the firing-squad example this might not look problematic since one probably just accepts that one of the gunmen's firing is unnecessary. But the problem in relation to cases of mental causation is more worrying. According to "Causal Closure" the physical subvenient property is sufficient for its effects. And as Kim states: "[…] in making a physical cause available to substitute every mental cause, it appears to make mental causes dispensable in any case" (Kim, 1998, p.44-45). That is, if the subvenient is sufficient, then, the mental supervenient property becomes dispensable. And if the mental property is dispensable – why even postulate it as a cause?[6]

[5] For further discussion of the others, see: (Lim, 2011; Moore, 2012, 2016; Sider, 2003, Kim, 1998, 2005)
[6] As has been pointed out in the debate, the argument cuts both ways (Lim, 2011, p.357). Not only may the mental property be dispensable, so may the physical subvenient property (given the truth of "Mental Causation"). If the mental property is sufficient, then the physical property is dispensable.

According to Kim, then, it is implausible that cases of mental causation are cases of overdetermination. And this is partly due to the problem of the dispensability of mental properties. Due to the implausibility of it being the case The Exclusion Problem is often described as including the principle of "No Overdetermination" – defined as follows:

[No Overdetermination] – Cases of mental causation are not cases of genuine overdetermination

The previously mentioned firing-squad example is a paradigmatic case of *genuine* overdetermination. If either of the gunmen could occur without the other and still cause the death of the convict, then, the other does not seem to be needed for the effect to occur. The relevance of the notion of genuine overdetermination will become apparent in the next section. Now, because of the implausibility of cases of mental causation being cases of genuine overdetermination; there must be something wrong with the three principles that, taken together, generate it. That is, either mental or physical properties cannot be sufficient for their effects, or, the mental and physical properties must be identical. The former would falsify either "Mental Causation" or "Causal Closure" while the latter would falsify "Irreducibility".

This then, is The Exclusion Problem:

(1) The truth of "Mental Causation", "Causal Closure" and "Irreducibility" results in cases of mental causation turns out to be cases of genuine overdetermination.
(2) Cases of mental causation are not cases of genuine overdetermination – "No Overdetermination".

_____

(3) Hence; either "Mental Causation", "Causal Closure" or "Irreducibility" must be false.

The problem was originally meant as an argument against the causal efficiency of mental property – as an argument against "Mental Causation". And this is how Kim uses it in "Mind in a Physical World" (1998, p.45). But, he does also there consider a denial of the non-identity between physical and mental properties as an alternative (to deny "Irreducibility"). Which is an alternative he on a later occasion in has endorsed (2005, p.125).

In the current essay, neither of these alternatives will be further discussed. What is of present concern is the compatibilistic solution of the problem – which is to dispute the claim that the truth of the three principles results in overdetermination (at least not of the harmful variety). If compatibilism is correct, then, the reason for why either of the three has to be given up would no longer be available for the proponent of the problem.

2.2 Compatibilism

Compatibilism, as it henceforth will be considered, is due to Karen Bennett (2003, 2008). It is a position that starts out by assuming the truth of "Mental Causation", "Causal Closure" and "Irreducibility", and then goes on to argue that the truth of these does not result in cases of mental causation being cases of overdetermination (maintaining "No Overdetermination"). And if the truth of the three principles does not result in overdetermination, then, the proponent of The Exclusion Problem would no longer reach the conclusion that either of them must be given up.

What compatibilism needs to do is to establish that cases of mental causation are not cases of genuine overdetermination and hence not on par with cases such as the firing-squad example. And furthermore, they need to do so while maintaining the causal sufficiency of both mental and physical properties and that those mental and physical properties are not identical. Compatibilism, or rather *counterfactual* compatibilism which is the variety Bennett advocates, does this by construing a counterfactual test as a necessary condition for genuine overdetermination. The thought behind the test is simple and goes as follows: if two causes, say x and y, are both capable of causing their effect, say z, without the other, then, the scenario containing x, y and z passes the test. And if the scenario does not pass the test, then, it cannot be a case of genuine overdetermination. The first thing to do when construing a counterfactual test is to device the relevant counterfactuals which takes the following form:

(CF1) if x occurs without y; z would still occur - $(x \wedge \neg y \rightarrow z)$

(CF2) if y occurs without x; z would still occur - $(y \wedge \neg x \rightarrow z)$

Let x and y refer to the gunmen in the firing-squad example, and let z refer to the death of the convict. In the firing-squad example, both x without y and y without x would bring about z. Hence, both counterfactuals would turn out true[7] which means that the test is passed. But, as Bennett highlights, cases of mental causation differs from cases of overdetermination such as the firing-squad example. They differ in the respect that mental and physical properties are not *independent* in the way that the two gunmen are. Mental and physical properties are *dependent* in the sense that they, due to supervenience, are co-occurring. Supervenience tells us that whenever a subvenient physical property occurs - so does a supervenient mental property. This cannot be said of the two gunmen in the firing-squad example. Each gunman could easily occur without the other since there is no tight relation such as supervenience holding between them.

[7] Not only true but *non-vacuously true.* A counterfactual is non-vacuously true when "the closest possible world where the antecedent and the consequent are both true is closer than any possible world where the antecedent is true but the consequent is false" (Moore, 2016, p.8) - $(x \wedge y \rightarrow z) = T$ iff in closest possible world $(x \wedge y) = T$ and $z = T$. An example of a non-vacuous counterfactual could be the following: if today is the birthday of my mother and I have bought my mother a present, then my mother will receive a present from me today. Given that both conditionals are true in the closest possible world, then the counterfactual is non-vacuously true.

If the two causes are dependent in such a way as they are in cases of mental causation, then, the counterfactuals turn out *vacuous* due to the antecedents being necessarily false.[8] And if either or both of the counterfactuals are vacuous, then, the test is not passed and the scenario which is being tested cannot therefore be a case of genuine overdetermination. Hence – cases of mental causation cannot be cases of genuine overdetermination since such cases do not pass the counterfactual test.[9] Although much more could be said regarding the evaluation of the counterfactual test in relation to mental causation, I will not, due to its not being my primary concern, elaborate any further on the matter.[10]

Genuine overdetermination, then, is the kind of overdetermination that involves independent causes (such as the firing-squad example). This has also been referred to as *independent overdetermination.* And it is the independent variety that Kim argues against. According to some philosophers, cases of mental causation might still be cases of overdetermination – but *dependent overdetermination.*[11] I will henceforth speak of cases of mental causation as overdetermination, but of the dependent variety.[12] This is in no way conflicting with compatibilism since, as Bennett states: "[t]he compatibilist could in principle accept that the effects of mental causes are always overdetermined, just not in a bad way […]" (Bennett, 2003, p.5).

So far it has been shown how compatibilism argues that cases of mental causation are not cases of independent overdetermination. According to compatibilism, cases of mental causation are cases of dependent overdetermination. But, nothing has yet been said regarding how cases of dependent overdetermination avoid the threat of "Dispensability". After all, mental causation still involves two sufficient causes for a single effect. And if either is sufficient, then, either would suffice for the effect to be brought about. And if either would suffice without the other, then the other would be unnecessary and hence dispensable. In order to see how dependent overdetermination avoids the threat, let us recall what Kim states regarding the problem: "[…] in making a physical cause available to substitute every mental cause, it appears to make mental causes dispensable in any case" (Kim, 1998, p.44-45)

That is, if physical subvenient properties, by themselves, are capable of doing all the causal work of their supervenient mental property, then – the mental properties does not seem to be needed (as

---

[8] A counterfactual is vacuous when the antecedent is false in all possible worlds - $(x \wedge y \rightarrow z) = V$ iff $(x \wedge y) = F$. An example of a vacuous counterfactual could be the following: if squares are round and circles are squares then the Eiffel tower is in Paris. The antecedent of the counterfactual is false in all possible worlds which makes it vacuous.

[9] It should be mentioned that both counterfactuals in cases of mental causation might not turn out vacuous. This is because there may be possible worlds were mental properties causes the particular effect without being supervenient on any physical property. To deny this may jeopardize the claim that physicalism is only contingently true (Bennett, 2003, p.17).

[10] For further discussion: (Bennett, 2003; Lim, 2011; Moore, 2016)

[11] Among these are: (Funkhouser, 2002; Moore, 2012; Sider, 2003; Walter, 2008).

[12] The *independent/dependent* terminology is used by, among others: (Lim, 2011, p.360). The distinction has also been referred to as *independent/incorporating* overdetermination (Funkhouser, 2002).

causes) and does therefore seem to be dispensable. Mental properties are dispensable as causes if their physical subvenient properties are capable of doing all the causal work without the mental properties. But, due to supervenience, whenever the physical subvenient property occurs – so does the mental supervenient property. Sven Walter describes how mental causation avoids the problem of dispensability of mental properties in the following passage, (*P* = physical subvenient and *M* = mental supervenient):

> "[…] neither of the co-occurring causes is dispensable in the same sense as, say, the two assassins' shots are dispensable as causes of the victim's death: Given *Supervenience*, *M* will be present as long as *P* is present, so that dispensing with *M* requires dispensing with *P*, in which case the effect might fail to occur and *M* may not be dispensable after all" (Walter, 2008, p.678–679)

That is, to dispense with the mental property would be to dispense with the physical property. Hence – the physical property cannot do all the causal work without the mental property since the former cannot occur without the latter. The mental property does therefore not seem to be dispensable.

Before proceeding to the next section, let us briefly summarize what has been said. Compatibilism argues that the truth of "Mental Causation", "Causal Closure" and "Irreducibility" does not result in cases of mental causation turning out to be cases of genuine/independent overdetermination. And hence does not violate "No Overdetermination". Bennett does this by arguing that cases of mental causation do not pass the counterfactual test which is a necessary condition for genuine/independent overdetermination. According to compatibilism, cases of mental causation are rather cases of dependent overdetermination. And dependent overdetermination avoids the threat of mental properties being dispensable as causes since the physical subvenient property cannot, due to supervenience; occur without its mental supervenient property.

3. Moore's Critique

Compatibilism, then, avoids the problem of dispensability by highlighting the co-occurrence of physical and mental properties. In two recent papers, Dwayne Moore has criticized compatibilism on the grounds that the co-occurrence has consequences of its own that might give one reason to question the plausibility of compatibilism. Or rather, in one of the papers (2012) he questions whether dependent overdetermination can handle the dispensability objection in a satisfactory way; and in the other he applies his criticism with compatibilism as his target (2016).

In these papers, he states two arguments against compatibilism. The first argument is that the co-occurrence of physical and mental properties makes it impossible to establish the causal sufficiency of physical subvenient properties, which makes "Causal Closure" impossible to prove. Call this "The Epistemological Argument". And the second is that compatibilism, by making mental properties

indispensable (as opposed to dispensable), might undermine the causal sufficiency of physical properties in cases of mental causation. Call this "Physical Insufficiency". I will devote the most attention to the second argument since it, if correct, is the most worrying for compatibilism. I will examine each of these arguments in turn and argue that neither is forceful enough to undermine compatibilism; beginning with the first.

3.1 The Epistemological Argument

If a cause is sufficient for a certain effect, then, that cause will be all that is required for the effect to occur. In order to establish whether a cause is sufficient; it needs to be shown that the cause, in isolation from any other cause, would bring about the effect. In all cases of mental causation, the relevant effect has a sufficient physical cause – due to "Causal Closure". And it follows from supervenience that the physical properties that figure in cases of mental causation, by metaphysical necessity, co-occurs with a mental causes of the relevant effect. In order to establish the sufficiency of the physical property, it needs to be shown that it, in isolation from any other cause, would bring about the relevant effect. But, as matters are, there are no possible worlds where the physical property without the mental property brings about the effect. Hence, there are no such possible worlds that are required to establish the sufficiency of physical causes figuring in cases of mental causation. It is therefore, on compatibilism, impossible to establish the causal sufficiency of the relevant physical properties - which means that "Causal Closure" turns out to be impossible to prove. And as Moore states: "[…] philosophers generally, but not necessarily, avoid embracing doctrines that are metaphysically impossible to prove" (Moore, 2016, p.17).

It is important to put emphasis on that compatibilism does not result in the impossibility of establishing just any physical property's causal sufficiency; only those that figure in cases of mental causation. And if the truth of "Mental Causation" is assumed, then, cases of mental causation do occur. And this is enough to make "Causal Closure" impossible to prove since it states that "all physical effects have sufficient physical causes"; if there are some physical effects where the sufficiency of its physical cause is impossible to prove – then, it is impossible to establish that all physical effects have sufficient physical causes.

I think that the compatibilist response to such an objection should be to simply *bite the bullet*. If one accepts supervenience (with metaphysical necessity), then, this is a consequence one should accept. And there are forceful reasons to accept supervenience. One of them being that supervenience is what anchors mental properties in the physical domain. As Kim states:

> […] mind-body supervenience brings mental phenomena within the ambit of the physical: the physical determines the mental, and in that sense the mental does not constitute an ontologically independent domain […] (Kim, 1998, p.41).

To reject supervenience, then, would be to accept that mental properties are of an ontologically distinct kind than physical properties. Supervenience is the glue that keeps mental properties in the physical domain; and without it, mental properties causing physical effects would violate the commonly held thesis that the physical domain is *causally closed* - the thesis stating that "[…] no causal chain will ever cross the boundary between the physical and the nonphysical" (Kim, 1998, p.40). The principle that has been referred to as "Causal Closure" is derived from the causal closure of the physical domain. If the causal chains of all physical effects never leave the physical domain, then, all physical effects have sufficient physical causes. Now, if mental properties were to cause physical effect without being supervenient on physical properties and hence unanchored to the physical domain, then, the causal chains of those effects would stretch beyond the physical domain and hence violate the causal closure of the physical domain. As Kim puts it:

> [i]f mind-body supervenience fails – that is, if the mental domain floats freely, unanchored in the physical domain, causation from the mental to the physical would obviously breach the physical causal closure (Kim, 1998, p.40).

So, supervenience should not be rejected; since if it were, then mental causation would violate the causal closure of the physical domain.[13] For this reason, regarding the epistemological objection; compatibilism should accept the impossibility of establishing the supposed sufficiency of physical properties as a consequence of their position. It is important to keep in mind that the objection does nothing to display any incoherency within the compatibilist framework. The worry is only epistemological – we just cannot know if the compatibilism assumptions are correct. As Moore himself states: "[t]his problem may only suggest that it is impossible to confirm the individual sufficiency of the physical cause for the effect" (Moore, 2012, p.328). And furthermore, compatibilism does not purport to establish either of their assumptions. All they attempt to do is to, with the truth of the three principles as a starting point; avoid the conclusion that cases of mental causation are cases of independent/genuine overdetermination.

I believe that Moore's second objection is more worrying for the compatibilism. Since it, if correct, does point to an incoherency in the compatibilist framework. I will in the following section first present the objection and then argue that it only works if one accepts a view of causation where an effect cannot have more than one sufficient cause unless the effect is genuinely overdetermined.

3.2 Physical Insufficiency

[13] One reason not to violate the causal closure of the physical domain is that one would then be rejecting the possibility of a "complete and comprehensive physical theory of all physical phenomena. For you would be saying that any complete explanatory theory of the physical domain must invoke nonphysical causal agents [mental properties]" (Kim, 1998, p.40).

The second argument is more forceful than the first since it, if correct, establishes that physical properties co-occurrence with mental properties makes the physical property insufficient as a cause of the relevant physical effect – and hence violating "Causal Closure". To understand Moore's argument, let us elaborate on cases of mental causation.

From here on, cases of mental causation will be referred to as S; the physical subvenient properties and the mental supervenient properties that figure as causes in such cases P1 and M1; and the physical effects in S will be referred to as P2. If "Mental Causation" is true, which according to compatibilism it is, then, there are instances where S occurs. In all S, both M1 and P1 are sufficient causes of P2 - the latter due to the truth of "Causal Closure". And it follows from supervenience that whenever P1 occurs – so does M1. It might be objected that some physical properties might cause P2 without being co-occurring with M1; and this might well be true, but – those physical properties would not be those figuring in S.

Let us now explicate "Physical Insufficiency". The argument goes as follows (2012, p.328):

(1) If a physical cause of a given effect necessitates a mental cause of this effect, then the physical cause is not individually sufficient for this effect

(2) The physical cause of this given effect does necessitate a mental cause of this effect

_____

(C) Therefore, the physical cause is not individually sufficient for this effect

What premise (2) state is that there are physical causes of given effects that necessitate (is co-occurring with) a mental cause of those effects. And this is the case in S. Since whenever P1 occurs; not only is M1 necessarily present but present as a cause of P2. That is, some physical causes (P1) of a given effect (P2) do necessitate a mental cause of that effect (M1). As Moore states:

> […] if the principle of mental causation is true on an occasion, some *m* is necessarily a cause of *p**. If *m* is merely a necessarily present event prior to *p**, or worse yet, does not occur at all, then mental causation fails in this instance. So, in order for mental causation to be true in this instance, some *m* is necessary as a cause of *p** (Moore, 2016, p.6).

In all S, "Mental Causation" is true which means that M1 is present as a cause of P2. Hence – whenever P1 causes P2; M1 is also a cause of P2. But if (2) is true, which it is on compatibilism, then, according to premise (1) – the physical cause (P1) is not individually sufficient for the effect (P2).[14] According to Moore, this follows from the relation between necessity and sufficiency. If a cause is sufficient for an effect as in all that is needed for that effect to occur, then, no other cause could be

[14] Individual sufficiency refers to sufficiency in the same sense as has been used throughout the essay. As: "if x is sufficient for z, then x alone is capable of bringing about z.

necessary as a cause of that effect. And if a cause is necessary as a cause of an effect, then, no other cause could be sufficient for that effect. He states: "if *a* alone is a sufficient cause of *b*, *c* is unnecessary as a cause for *b*; and, if *a* is necessary as a cause of *b*, *c* alone is an insufficient cause of *b*" (Moore, 2016, p.4). According to Moore, M1 is a necessary cause of P2. And if he is correct, then – due to the relation between necessity/sufficiency – P1 cannot be sufficient as a cause of P2. As Moore states: "[i]f this mental event necessarily occurs, and is necessarily a cause of this effect, then by very definition, this physical cause is individually insufficient for making this effect occur" (Moore, 2012, p.329). And if P1 cannot be sufficient for P2, then, "Causal Closure" turns out false.

This is "Physical Insufficiency" - Moore's second argument against compatibilism. And, if it is correct, then, it establishes that the compatibilist assumptions are not compatible. More precisely, that the truth of "Mental Causation" combined with supervenience results in the falsity of "Causal Closure".

3.3 Against Physical Insufficiency

In the following section I will criticize the argument on two grounds. First, I will argue that if Moore states that it follows from the presence of M1 as a cause of P2 whenever P1 causes P2 that M1 is necessary as a cause of P2; then there is a logical flaw in Moore's argument. Second, I will show that M1 being present as a cause of P2 whenever P1 causes P2 might threaten to violate the sufficiency of P1 and hence "Causal Closure" – but this is only if one accepts a view of causation where an effect cannot have more than one sufficient cause unless it is genuinely overdetermined.

Let us begin by clarifying what is to be meant by *necessary as a cause*. As I understand the notion it is that if a particular cause, say x, is necessary as a cause of a particular effect, say z; then it would not be possible for z to occur without x. And, as Moore points out, if x is necessary as a cause of z then no other cause could be sufficient for z. But Moore, given his way of expressing himself, might have in mind that it follows from M1's being present as a cause of P2 on all occasions where P1 causes P2 that M1 is necessary as a cause of P2. And this does not follow. Or so I argue.

That there are no instances of P1 causing P2 without being accompanied by M1 as a cause of P2 does not mean that P2 could not occur without having been caused by M1. Consider the physical effect of *pain signals being sent to my arm.* According to compatibilism there are no occasions where this effect is caused by a physical subvenient property figuring in S without there being a mental property present as a cause of this effect as well. From this it does not follow that this effect cannot be caused by anything else than those causes that in S precedes it. This is since it is possible that some other physical cause that does not figure in S, and hence does not co-occur with a mental cause, could cause pain signals to be sent to my arm. Perhaps some ingenious scientist who is in control of my brain could cause pain signals to be sent to my arm. If so, then this effect would occur without a mental

property preceding it as a cause which makes it the case that the effect could occur without a mental cause. And if it is possible for pain signals to be sent to my arm to occur without being caused by a mental cause, then no mental property could be necessary as a cause of this effect.

If what Moore has in mind regarding his second argument is that physical effects figuring in S could not occur without a mental cause; and that those effects therefore cannot have sufficient physical causes, then there seems to be something flawed with the argument. This is since it does not follow from M1 being present as a cause of P2 whenever P1 causes P2 that P2 cannot occur without M1 (that M1 is necessary as a cause of P2). The physical effects figuring in S, such as *pain signals being sent to my arm*, could occur without a mental cause preceding it which means that no mental cause could be necessary as a cause of it. [15]

Let us now turn to the second part of my critique which is that there is a sense in which the presence of M1 as a cause of P2 whenever P1 causes P2 does result in P1 being insufficient as a cause of P2 – which is what Moore aims to establish. This is if one accepts a view of causation where an effect cannot have more than one sufficient cause at a given time unless it is genuinely overdetermined. Compatibilism, by maintaining the truth of "Mental Causation", "Causal Closure" and "Irreducibility" are committed to a view of causation where an effect can have more than one sufficient cause – without thereby being genuinely overdetermined. By committing themselves to such a view they are rejecting the principle commonly referred to as "Causal Exclusion"; defined as follows:

> [Causal Exclusion] – "No single event can have more than one sufficient cause occurring at any given time" (Kim, 2005, 42)[16]

I will in what follows argue that the success of Moore's second argument depends on the truth of the above principle. That is, if one accepts a view of causation where no effect can have more than one sufficient cause without being genuinely overdetermined, then the presence of M1 as a cause of P2 whenever P1 causes P2 does result in P1 being insufficient as a cause of P2 – which would violate "Causal Closure".

If "Causal Exclusion" is true, then no effects can have more cause than what is needed for it to occur (unless the effect is genuinely overdetermined). That is, if a cause is sufficient for an effect (as in all

[15] What Moore might mean is that those physical effects that figure in S are different than the similar physical effects that do not figure in S. That is, the physical effect *pain-signals being sent to my arm* as it occurs when caused by a ingenious scientist differs from *pain-signals being sent to my arm* as it occurs when caused by a mental supervenient property and its physical subvenient. If so, then the mental property would be necessary as a cause for the effect since without it qua its causal participation then the effect would not be the same as it would have been if the mental property would have caused it. But if this is what Moore means, then we would have to justify such a distinction between the same type of effects. The idea of distinguishing the same type of effects from one another on the grounds of them having occurred in a specific manner has been criticized by Eric Funkhouser (2002).

[16] The clause "at any given time" is meant to exclude the possibility of the principle excluding cases of causation where sufficiency is transitive and hence results in more than one sufficient cause of a given effect.

that is needed for it to occur), then that effect can have no more causes unless it is genuinely overdetermined. Roughly put, if "Causal Exclusion" is true, then the "bar" is at all that is needed for the effect to occur. On such a view of causation, a scenario such as S where a sufficient cause of a particular effect is co-occurring with an additional cause of the same effect would not be possible. It would not be possible since a cause then could not be sufficient if it were necessarily accompanied by an additional cause of its effect.

Let us clarify by way of illustrating a view of causation where an effect cannot have more cause that what is needed for it to occur in a way that is due to Ted Sider (2003). He illustrates such a view as follows: "Causation is a kind of fluid divided among the potential causes of an effect. If one potential cause acts to produce an effect, that fluid is *used up*, and no other potential cause can act" (Sider, 2003, p.2). If an effect has a sufficient cause, then all the causal fluid is used up and no other cause could act. In a scenario such as S where a sufficient cause of a particular effect is co-occurring with an additional cause of that effect the sufficient cause cannot use up all the fluid by itself. This is since the co-occurring additional cause then would use up some of the fluid. If the additional cause would not use up some of the fluid then it could not be a cause of the particular effect. But, as matters are – it is a cause of the particular effect. It is therefore the case that in a scenario such as S, the supposed sufficient cause cannot be sufficient (since it then would not use up all the causal fluid by itself). Hence, if "Causal Exclusion" is true, then M1's being present as a cause of P2 whenever P1 causes P2 would result in P1 being insufficient. Or so I argue. Let us now consider whether we get the same result if the principle is false. I argue that we do not.

If effects can have more than one sufficient cause without being genuinely overdetermined, then it is possible for effects to have more cause than what is needed for them to occur (without being genuinely overdetermined). Roughly put; the "bar" is then not at all that is needed for the effect to occur. To follow Sider's illustration: if "Causal Exclusion" is false, then the using up of the causal fluid does not prevent other causes for causing the relevant effect. And if an effect can have more cause than what is needed for it to occur, then M1's being present as a cause of P2 whenever P1 causes P2 does not necessarily result in P1 being insufficient as a cause of P2.[17] This is since the necessity involved in M1's causing of P2 is not the kind that violates P1's sufficiency – as long as "Causal Exclusion" is false. The necessity involved in M1's causation of P2 is this – M1 is necessarily present as a cause of P2 whenever P1 causes P2. As in that there are no instances of S where P1 causes P2 without M1 being present as a cause of P2. If an effect can have more cause than it needs for it to occur, then P1's sufficiency for P2 is not in conflict with M1 being present as an additional cause of P2. That is, P1's

[17] Or rather, it does not follow from compatibilism that M1 makes P1 insufficient. It might be the case that P1 actually requires M1's help in order to bring about P2, in which case P1 would not be sufficient; but, as "The Epistemological Argument" points out – this we may never know since they necessarily co-occur.

sufficiency as a cause of P2 is compatible with M1 causing P2 as well since, if "Causal Exclusion" is false, effects then could have more cause than what is needed for them to occur.

So it seems as if there is at least a case to be made for that the success of Moore's argument depends on the truth of "Causal Exclusion" – which seems to leave us with a situation where independent arguments for/against the principle are required to settle the issue. Compatibilism, as it is presented by Bennett, says nothing regarding the plausibility of the principle. All she does is to argue that the truth of "Mental Causation", "Causal Closure" and "Irreducibility" does not result in cases of mental causation being cases of genuine overdetermination. As a result of compatibilism, "Causal Exclusion" turns out false. Hence, the falsity of the principle should not be considered as what compatibilism argues against but rather as a consequence of the position.

I have argued that in order for Moore's argument to be convincing, reasons ought to be provided in favor of the view of causation on which the success of his argument depends. And this has been the main point of the above section. But before ending this essay, it should also be mentioned that if Moore somehow were to bring forth convincing reasons to accept the truth of "Causal Exclusion", then the above argument might not be the biggest concern for compatibilism. This is since if convincing reasons were presented in favor of the principle then compatibilism might no longer be an attractive solution to The Exclusion Problem. Compatibilism advocates a view of mental causation where effects have two sufficient causes – the principle forbids a view of mental causation where effects have two sufficient causes. What compatibilism advocates is precisely what the principle forbids. Hence, if the principle were to be supported in a way as to make one accept it – then compatibilism could not be true. And this would be regardless of Moore's second argument. What I have argued for is that compatibilism is in conflict with "Causal Exclusion" indirectly since the success of "Physical Insufficiency" depends on its truth. But compatibilism is also conflicting with the principle directly since it advocates precisely what the principle forbids. Or rather, if one accepts the compatibilist assumptions – then the falsity of "Causal Exclusion" follows. And if one accepts the truth of "Causal Exclusion", then one can no longer hold the compatibilist assumptions to be true.

4. Conclusion

My main goal with this essay has been to defend compatibilism against some recent criticism provided by Dwayne Moore. The criticism consisted in two arguments which I have referred to as "The Epistemological Argument" and "Physical Insufficiency". I have argued that the compatibilism, regarding the former, should simply *bite the bullet* and accept the impossibility of establishing the sufficiency of physical properties as a consequence of their position. I argued that the benefit of accepting supervenience, which is what gives rise to the problem, outweighs the negative consequences. One of the benefits being that supervenience allows us to anchor mental properties to the physical domain. If supervenience were to be rejected, then, mental causation would violate the

causal closure of the physical domain since mental properties then would inject causal influences from outside the physical domain. Hence, there are good reasons to maintain supervenience. And since the epistemological argument does nothing to display any incoherency in the compatibilist framework, the impossibility of establishing "Causal Closure" is a consequence compatibilism could accept.

I have devoted the most attention to the argument of physical insufficiency. The argument stating that the co-occurrence of mental and physical causes results in that the physical cause becomes insufficient for its effect – hence violating the principle of "Causal Closure". I have argued that the argument either utilizes flawed logic or that it only works if one accepts a view of causation where an effect cannot have more than one sufficient unless it is genuinely overdetermined. And that this is since the necessity involved in the mental properties causation of physical effect is not the sense which would conflict with the sufficiency of its physical subvenient property – unless one accepts a view of causation where "Causal Exclusion" is true. If I am correct then Moore should in order for his argument to be forceful provide reasons for accepting the view of causation on which the success of his argument depends. Lacking such reasons, I do not think that Moore's critique as it stands is forceful enough to undermine the plausibility of compatibilism.

And finally I mentioned that if such reasons were to be brought forth, then compatibilism might no longer be an attractive solution to the Exclusion Problem since the falsity of "Causal Exclusion" is essential to compatibilism. Hence, if strong enough reasons were to be presented to make one accept the truth of the principle, then one could no longer maintain the compatibilism assumptions. Where does this leave us? If my arguing against Moore is convincing, then compatibilism remains a viable solution to the Exclusion Problem and more would have to be done if its plausibility is to be undermined.

References

Bennett, K. (2003). Why the Exclusion Problem Seems Intractable and How, Just Maybe, to Tract It. *Noûs*, *37*(3), 471–97.

Bennett, K. (2008). Exclusion Again. In J. Hohwy & J. Kallestrup (Eds.), *Being Reduced: New Essays on Reduction, Explanation, and Causation*. Oxford University Press.

Funkhouser, E. (2002). Three Varieties of Causal Overdetermination. *Pacific Philosophical Quarterly*, *83*(4), 335–351.

Kim, J. (1998). *Mind in a Physical World: An Essay on the Mind-Body Problem and Mental Causation*. MIT Press.

Kim, J. (2005). *Physicalism, or Something Near Enough*. Princeton University Press.

Lim, D. (2011). Exclusion, Overdetermination, and Vacuity. *Southwest Philosophy Review*, *27*(1), 57–64.

Moore, D. (2012). Causal Exclusion and Dependent Overdetermination. *Erkenntnis*, *76*(3), 319–335.

Moore, D. (2016). Mental Causation, Compatibilism and Counterfactuals. *Canadian Journal of Philosophy*, *47*(1), 20–42.

Sider, T. (2003). Review: What's so Bad About Overdetermination? *Philosophy and Phenomenological Research*, *67*(3), 719–726.

Walter, S. (2008). The Supervenience Argument, Overdetermination, and Causal Drainage: Assessing Kim's Master Argument. *Philosophical Psychology*, *21*(5), 673–696.