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Psychological backwards causation

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Abstract

Since Michael Dummett (1925 –2011) published "*Can an effect precede its cause*" (1954), in which he argued for the logical consistency of backwards causation, the controversial concept has been discussed extensively. One of the many misunderstandings related to Dummett's argument is due the belief that his argument can fit both psychological as well as physical accounts of backwards causation. This paper clarifies this confusion.

Key words: Backwards Causation, Physical Backwards Causation, and Psychological Backwards Causation..

المُلخَص

منذ أن طرح الفيلسوف البريطاني مايكل دمت، ولأول مرة، فرضيته في السببية العكسية بنشره لبحثه الشهير "هل يمكن للنتيجة أن تسبق السبب" عام ١٩٥٤، و التي أثبت فيها عدم التناقض المنطقي للقول بإمكان التأثير في الماضي، حظيت الفرضية -الإشكالية بطبيعتها- بوافر حظ من التأويل و الجدل. أحد هذه التأويلات افترض معنيين للفرضية: المعنى النفسي و المعنى الفيزيائي الواقعي، لينتهي بالقول بسببية عكسية نفسية و سببية عكسية فيزيائية. هذا البحث مكرّس لتبيان خطأ هذا الفهم المزدوج للفرضية، كما اقترحها دمت أول مرة.

كلمات دلالية: السببية العكسية- السببية العكسية النفسية- السببية العكسية الفيزيائية- الاتساق المنطقي.

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Introduction:

Since Dummett first suggested that we can think of bringing about the past without committing any logical contradiction. The highly counterintuitive nature of the thesis caused reactions that can generally be grouped into two categories. First, was the complete objection; under this category comes –for example–the famous objection launched against the theory by the American philosopher of language Max Black (1909 –1988), who argued against the idea in his paper "Why can't an effect precede its cause?" (Black, 1956, p57), the objection from Gorovitz's argument (Gorovitz, 1964) and the objection from Ben-Yami's argument (Ben-Yami, 2007). The other category- the category I am more interested in in this paper- included a reaction that tried to understand the complicated theory by way of providing different kinds of interpretations. However, some of these interpretations as I will prove in this paper were not faithful to Dummett's original proposal.

Dummett's argument for backwards causation:

For Dummett the belief that an agent can do a later cause today to bring about an earlier effect in the past can be accepted without causing any logical contradictions of any type. In "Bringing about the past", Dummett asks us to imagine a tribe that has a specific custom; every second year the young men of the tribe are sent on a lion hunt to prove their manhood; during this ritual they travel for two days, hunt lions for two days, and spend two days on the return journey. Observers accompany them in their trip to report to the chief upon their return whether the young men were brave or not. The tribe's whole causal beliefs are different from ours; they hold that some ceremonies performed by the chief have the ability to influence weather, etc. But what is important to be remembered is that these ceremonies are not to be taken as related to gods of any kind at all-. Now, while the young men are away from the village, the chief performs ceremonious dances intended to cause the young men to act bravely. Let's suppose that the chief continues to perform these dances for the whole six days that the party is away. His act can be considered as a case of an act performed for the purpose of changing the past. (Dummett, 1980, P 343)

However, while ordinary forward causation holds with Dummett a relatively open explanatory power, due to its actuality, backwards causation holds only a conditioned power valid to explain the occurrence of events only when certain conditions are fulfilled. In other words, quasi causal explanations are available conditionally and only when ordinary causal explanations are not available. But what are those conditions sufficient to make us explain the occurrence of previous types of events by the occurrence of later types of events without committing logical contradictions?

These conditions as Dummett presents them in "*Causal Loops*" are the following: A later type of event or act B can be considered as the cause for a previous type of event F without causing inconsistency in case:

- a. We can find no other ordinary causal explanation for the occurrence of F, i.e., via reference to previously occurring causes. Dummett says in his explanation of the first condition,

The performance of B approximates in our experience, to being a sufficient condition for the previous occurrence of F: more exactly, there is a sufficiently high positive correlation between them for the performance of B, in a case in which we do not otherwise know whether F has

occurred, significantly to increase the probability that it has
(Dummett, 1993, P359)

- b. We can find no ordinary causal explanation for the correlation between B and F, i.e., F is not the cause of B.
- c. B is proven by our experience to be an act that we can do whenever we choose to do it. This means that we don't experience any incidents in which we try to perform B but then we fail.

Peijnenburg on interpreting Dummett's backwards causation:

When Dummett first argued for the consistency of backwards causation, his argument was mainly concerned with as past events or acts, or more precisely speaking, past types of events and acts. When we talk about past types of events with Dummett, we simply mean those past types of events themselves, in their concrete physical spatiotemporal existence. To put it another way, when Dummett argued for the consistency of backwards causation what he had in mind was a physical type of backwards causation. But some, like Jeanne Peijnenburg, allow the extension of Dummett's argument to be equally applicable to what I will refer to in this paper as psychological backwards causation, where those same past events and acts are treated differently. As I argue in this paper , in her interpretation to Dummett's backwards causation, Peijnenburg uses the concept of past events and acts in a new way that is far from being faithful to Dummett's proposal. But more importantly, while Dummett's argument can be defended, Peijnenburg's argument, which is supposed to be an extension of Dummett's, is not equally defensible.

In this paper I am going to clear up this confusion. I argue that Peijnenburg misunderstood Dummett's argument and that, contrary to what she has claimed, her argument is not an extension of Dummett's. I will make a distinction between what I will refer to as "Psychological backwards causation " and "Physical backwards causation." While Peijnenburg argued for the first, Dummett argued for the second. Not only I am going to show how different psychological backwards causation is from physical backwards causation; in addition, I am going to show how problematic psychological backwards causation is.

In her paper "Shaping your own life", Peijnenburg argues for a specific kind of backwards causation when she says, "*We shape our lives through our actions, and these actions not only influence our future but also determine our past*" (Peijnenburg, 2006,P 240)

She argues in this paper for the possibility of what she calls determining "*some actions after they have been performed, and in that sense shape our own past*" (Peijnenburg, 2006,P 245)

But what she means by the possibility of shaping the past seems to be applied specifically to the character of our past acts more than it can be applied to our past acts themselves, she says, "*I shall claim that there is a sense in which you really can determine the character of an act that you have already performed*" (Peijnenburg, 2006, P 243)

However, Peijnenburg doesn't rule out the possibility of shaping our past acts themselves and she is not to be interpreted as doing such a thing, because she refers to the ability of physically affecting the past more than once in her paper. However, she seems to be more interested in another side of affecting the past, the side which I am going to refer to

as the psychological aspect of shaping the past or psychological backwards causation. However, this aspect is different from Dummett's proposal as I will make clear in this paper.

First, I need to explain what the psychological aspect of shaping the past means. The phrase "the character of a past act" is of great importance here and not to be overlooked, because the main idea of Peijnenburg's discussion was to prove that we can reshape our past by determining the character of our past acts time and time again after these acts are already performed. The nature of her proposal is explained by her as follows,

The idea that at each juncture of my life I shape my own life by acting in a certain way is uncontroversial when applied to the future. It is generally accepted that the future is open, and that we in part create it by intervening. When applied to the past, however, the idea is controversial, for the past is considered to be fixed and irrevocable, not something that can be created or determined, even in part. Yet, I shall argue for the claim that in a sense we can determine some actions after they have been performed, and in that sense shape our own past. (Peijnenburg, 2006,P 243)

Not only does Peijnenburg consider her proposal similar to Dummett's, in addition she takes a further step by arguing for a real sense of affecting the past. She says,

Like Dummett, I maintain that there is nothing incoherent in the idea that you can influence the past. In a certain sense I shall even go a step further: I shall claim that there is a sense in which you really can determine the character of an act that you have already performed (Peijnenburg, 2006,P 245)

In her argument for actions as tendencies, actions are presented as incomplete projects that can only be completed after being seen under the light of later acts. Consequentially, later observations are essential for the gradual completeness of any act that takes place over time. It is a process that she describes as "*adding at an ontological level of elements to a set*" (Peijnenburg, 2006,P 248). As she argues, the character of our acts as symptoms of tendencies can't be established immediately, because we need later and even multiple observations to do the job of asserting any tendency; consequentially, acts might take place in a certain moment in the past and their character might be revealed in later moments. Now this later revelation of present characters of past performed acts is understood by Peijnenburg as a retrocausal act, because it is an act that influences the past starting from the present, especially if we take into consideration that acts are considered by her only as symptoms of tendencies and tendencies can be revealed only over time via discovering new characters of past acts; this means that past acts are missing something ontologically until they are completed later on. This is the simplest way of describing what the argument wants to say.

Peijnenbourg doesn't deny physical backwards causation, but she is only more interested in something else here. As a matter of fact, she asserts the physical aspect of retrocausality more than once. For example she says, "*Recent research on retrocausality and the arrow of time claims that it may be physically, and not merely logically, possible to affect the past*"

(Peijnenbourg, 2006, P 243)

However, Peijnenbourg argues in her paper for a different psychological type of backwards causation; therefore, this is the type I am going to consider in this paper.

Where did Peijnenbourg go wrong?

Peijnenbourg argues for psychological shaping for the past by determining the character of our past acts; but this approach to backwards causation which Peijnenbourg takes to be a case of backwards causation is a problematic approach to retrocausality. What Peijnenbourg seems to be arguing for can be best described as changing something about the past not in the past. In her argument, Peijnenbourg depends on making a distinction between acts performed in the past and the characters of those acts which can be determined in the present. The example she gives to explain this idea is the happily married mother of four children who goes to a party and after drinking too much wakes up in the morning to find herself lying in bed with a strange man in a hotel room; Peijnenbourg claims that only the later conduct of this lady will determine whether what she did can be said to be a beginning of a secret affair or an accidental one-night thing.

It is true that we might need some time to be able to determine characters of already performed acts but the inability to immediately determine acts' characters' shouldn't lead us to conclude like Peijnenbourg that those characters are not already there even when we can't determine what they are. Therefore, in my response to Peijnenbourg's argument I argue that any performed act fully acquires its characters at the time it is performed; no performed acts are simply born striped out of any characters and our limited access to the immediate determination of those characters doesn't mean their inexistence. All our acts acquire their own characters even when we can't determine those characters.

Later determination of characters of previously performed acts can't be considered as a retrocausal act as Peijnenbourg believed. If we accept the distinction between the ontological existence of acts and our epistemic ability to know their characters, this means that later determination of already performed acts can't be considered as backward causation, at least not the same backward causation Dummett meant by his proposal. When Dummett talks about backwards causation he talks about causing effects to take place in the past. This means that preventing later causes from taking place in the present will end up by preventing previous effects from taking place in the past. If the dancing chief in Dummett's famous example doesn't dance the young men would not have been brave. But for Peijnenbourg the same can't be true, because, whatever the lady thinks of what had happened nothing can change what actually had happen. She had already spent a night with a stranger in a hotel room, whether she now think of that act as a one night thing or a start of a long affair, this cannot change the fact that changing her way of thinking about what had happened is not changing what had happened. In other words, while Dummett talks about causing events to take place in the past Peijnenbourg seems to be talking only about reevaluating or even gaining more knowledge about what had already taken place in the past. What had happened had happened, even when we don't know about it. The lady's night in Peijnenbourg's case was a beginning of an affair even when we didn't know about that yet.

All acts and their characters will be simply there in the past, or at the time of their performances; our later determination of those acts in the present doesn't mean that we affected their ontological status in the past; we were only able to determine them in the present. But this present knowledge of the past already existent characters of previously performed acts shouldn't be considered as affecting the past in any way, because the mere knowing of something doesn't entail affecting that thing, and backwards causation means affecting something in the past not merely knowing something about the past.

However, Peijnenbourg seems to deal with past characters of acts and present determined characters of those acts as ontologically identical. To be more precise, with her there is even no acknowledgment of the existence of past characters of past acts, because the characters of past acts can be determined only in the present, and after those acts are already performed. She argues that acts performed in the past are only symptoms of tendencies. The only way to know to what tendencies these acts can be developed to, is by determining their characters; the time needed to determine acts characters is more than the time needed to perform the acts having those characters.

Mainly in my response I argue against the proposed difference in time between the performance of an act and the time needed to determine its already existing characters. There are cases in which no time is needed to be able to determine the characters of an act. These cases show that acts and tendencies are not separable the way Peijnenbourg argues for.

First, I need to clarify what Peijnenbourg meant by determining characters of past acts, because the way she puts it makes determining characters of past acts sound more like an ontological process than an epistemic one. What Peijnenbourg really argues for is creating those characters themselves. In other words, for her, the process of determining the characters of past acts goes as follows; first, the act takes place and then determining the character of that act might take place through time; because we- as Peijnenbourg observes- can't usually be in a good position to decide the character of an act without the appeal to later observations of more acts of the same kind, i.e., later acts that express and reveal the tendency that can't by its nature be revealed immediately or at least can't be determined by observing the very first act or couple of acts .

Roughly speaking, what Peijnenbourg wants to say in her paper is that we can determine undetermined characters of past acts after the acts are being performed, because the process of determining any character of an act is a process that by itself takes time to be accomplished, time that lasts more than the time we need to perform the act itself. By doing that, she believes, we create something in the past that has not been created yet, namely, characters of past acts.

Now, by creating the character of the act afterwards we cause something to take place in the past, i.e. we cause the existence of the as yet non-existent characters of previously performed acts. This later creation of the characters of past acts is understood by Peijnenbourg as a process that follows in time the creation of past acts themselves but nevertheless continues that process ontologically. In other words, it looks as if the process of creating acts themselves is a process that starts in the past and continues into the present. It is as if acts are born void of any character and gradually we start filling in their characters. Now, only after an act is completely filled in by uncovering its characters, can it be said to have been fully created. Therefore, Peijnenbourg takes the later figuring out of the past acts via discovering their characters as a kind of shaping the past or as a kind of backwards causation. As far as I can see, this is the sum of Peijnenbourg's argument. And

this is what is meant by what I refer to as psychological backwards causation, the concept that I am going to argue against in favor of what I refer to as physical backwards causation.

Before I move to my own response to Peijnenburg's argument, I will refer to another proposal that seems to share with Peijnenbourg the same ground of approving a psychological aspect of changing the past. It is what Van Putten calls the subjective way of understanding the past, where he claims that the past can be affected by what we do in the future, as he says,

If our past is understood as part of our personal myth, it is surely not fixed and irrevocable. Our past activities are part of the continuous narrative by which we shape our life story, and it is not absurd to say that the past changes because the actions we perform in the present or future. (Cornelis Van Putten, 2006,P 255)

As Van Putten explains, we can always understand our pasts in different ways, and these ways can take place after the actual past action takes place. For his argument he gives the example of the war veteran who always understands his past actions in combat as heroic and meaningful actions undertaken for the sake of his country, but then changes into a peace activist who understands the same actions as brutalities and crimes against humanity. As Van Putten believes, this man by turning into a peace activist, "*Changes his life story and the understanding of his past actions ... but he can't physically change the past*" (Cornelis Van Putten, 2006, P 255)

Now, although Van Putten admits that past physical events and acts can't be changed he seems to share with Peijnenbourg the same idea that the past, or more precisely speaking, the psychological reality of the past, is not fixed or irrevocable. The only conflict between Van putten and Peijnenbourg is whether the phenomenon of shaping one's past, viewed as a psychological phenomenon by Peijnenbourg, can be regarded as a case of retrocausality or not. For Peijnenbourg the answer is yes, while for Van putten the answer is no, because in spite of his acknowledgment of the soundness of Peijnenburg's argument for the possibility of changing the psychological reality of the past, contrary to her, he doesn't believe that her argument represents any case of retrocausality, because the change she talks about is not as she believes a change that happens in the future towards the past, because for him, "*In the narrative sense it is not a case of retrocausality.... Past, present and future are all in constant state of interaction*" (Cornelis Van Putten, 2006,P 257)

For Van Putten, the past and the present are not divided on a real time scale. Rather, they are "*here and now*" (Cornelis Van Putten, 2006,P 257)

Having argued that past acts hold their own set of characters, I still have to deal with cases when new sets of characters keep being added to original sets. What about cases when we determine or reevaluate the characters of previously performed acts? Could that be considered as psychological backward causation? The simple answer is no, because any way of rationally dealing with the past shouldn't propose causing the already existent thing to exist again, whether this thing was a concrete physical act or event or a previous psychological evaluation. It is a logical impossibility to cause the already caused thing to be caused again. New evaluations can always be considered but these new evaluations don't really replace old evaluations as if they have never existed, they come only after them,

If the psychological identity of our past act is already shaped then this means that we can't cause it to be shaped again. Of course we can reevaluate past determined

characters and give new meanings to our past acts but this is different from claiming that by reevaluating a past act I can shape its identity again. In fact, I can keep rethinking of old acts and I can change my way of thinking and my evaluation of what had happened tens of times but this doesn't mean that by doing that I am doing an activity that goes from the present to the past; because the past will still be untouched no matter how many times I change my mind about it now.

A past act X can be reevaluated by me or even by others for multiple times; I might give my past act X the value V1 at time T1 and the value V2 at time T2 and the value V3 at time T3...etc but this doesn't mean that the value V3 for example that I gave to my act X at time T3 can affect the value V2 that I gave to my act X at time T2. We have to keep the order, if new values V1, V2, V3 appear at times T1, T2, and T3, each value is connected to a specific time. It is a myth to believe that things can go and move along the time in an arbitrary way, even for psychological realities. In Van Putten's example, the veteran who becomes a peace activist can always change his views about his past acts and reevaluate what he used to see as sacrifices for the sake of his country as brutalities and crimes. He can always do that, and he can think again of those brutalities and reevaluate them again; this can be an open process, but does the reevaluation that this veteran can make after ten years eliminate the evaluation he previously made only after five years from his return to his country? as if the first evaluation had never existed?

If we are to deal with psychological realities as realities, and this is a controversial open question that I am going to take it for granted only for the sake of simplicity, this means that their non-physical special kind of existence must be taken into consideration, and this, in turn means that the open process of evaluating and reevaluating our past acts not only is incapable of changing the past physical occurrence of the past deeds, in addition, this process is incapable of eliminating the previous evaluations of the previously performed acts. New evaluations might keep popping up but these new evaluations can only replace the old ones without being able to eliminate the past existence of the past evaluations.

Everything that takes place in the organized order of this world takes place in a time and a place the moment it happens or comes into existence; this means that when any event takes place a specific time will be occupied, and in the case of physical events and realities not only a specific time would be occupied, in addition, a specific place would be occupied as well. To put it another way, different evaluations that take place during a specific duration of time will stand in what can be described as a queue in time where the new evaluations follow the past ones and don't kick them out of existence as if they have never been there

However, what matters is that both Pejnenbourg and Van putten shares the belief that the past, more precisely speaking, the psychological past, is not fixed and can be changed. But while Pejnenbourg takes it as a case for retro caution, Van Putten doesn't.

Before I move to my next step in my argument against Pejnenbourg I will briefly explain what I mean by "physical backwards causation". This aspect can be found in Dummett's argument for backwards causation; according to this view, the past that can be affected by any retro causal act is formed by the physical acts, the concrete events, or the real things that occur in a time and a place. This aspect of affecting the past, I argue is the only aspect of backwards

Pejnenbourg views past acts as symptoms of tendencies; this point is a major point in her discussion. She says, "*In so far as an action is a symptom of a tendency, it can be affected after it has been performed*" (Pejnenbourg, 2006, P 246)

When an act is regarded only as a symptom of a tendency, she thinks, this means that a single act will not be able to fully show the tendency represented by that act; consequentially, we will need to observe several later actions to be able to detect any tendency. However, when practically applied, this means that we as Peijnenbourg observes will need in order to decide what tendencies people do have to observe more about their behavior, the observation of which might take a longer time than the time taken to perform the acts themselves. The same is true for our own acts, because not only others' tendencies can't be known immediately, in addition, our own tendencies can't be manifested even to us until later acts are performed, and only those later acts can explain the character of our earlier deeds.

Now, as Peijnenbourg makes clear, this doesn't mean that the character of our past acts change and that we keep discovering new characters, rather, as she claims, this means that the process of determining characters of our acts is a gradual process that happens over time: it is a process that starts in the past and continues into the present and the future. She says,

It is not that an act can be described in different ways, so that an action before t (1) acquires a new description after t (1) for we are not just talking about a fixed set of actions "out there" that can be described first such and then so, non are talking about a set "out there" with a determinate character that only gradually revealed through later observations. What is being contended has ontological implications, not merely semantic or epistemological ones. What we are talking about concerns the adding, at an ontological level, of elements to a set, and hence concern the very shaping of a set "out there" as we go along. (Peijnenbourg, 2006, P 248)

In other words, for Peijnenbourg a single act can't reveal any tendency neither to us nor to others, and only by observing some other acts the tendency can be determined. For her, acts simply have uncompleted ontological characters that can be completed only by time. As we saw before, the example she gives to explain this idea is the happily married mother of four children who goes to a party and after drinking too much wakes up in the morning to find herself lying in bed with a strange man in a hotel room; as Peijnenbourg claims only the later conduct of this lady will determine whether what she did can be said to be the start of a secret affair or an accidental one-night thing.

My response depends mainly on rejecting her account of an act as a symptom of tendency, and rejecting the distinction in time between performed acts and characters. There is no gap in time between acts and their characters. There is only a gap in our ability to determine those characters. Now, we have one of two ways to understand this gap: first, we can understand this gap as an epistemic gap that exists between the performance of acts in the past and our ability to determine the characters of those past acts later on. In this case our later ability to know the characters of previously performed acts in the past can't be really understood as a retrocausal act, because knowing something about the past doesn't entail affecting the past. Second, the later determination of previously performed acts doesn't entail by itself any causal relation with those acts. This point can be made clearer if we replace the determination of past acts by the determination of past events. Let's suppose¹ that in a forest a lightning strike hits a tree; now, how can we determine if this

¹ Thanks to Prof. Edward Becker for suggesting this example during our conversation.

strike is an isolated incident or a beginning of a big fire? According to Peijnenburg only what will take place after the strike hits the tree can ontologically determine that incident. But does that mean that later events that might take place are casually related to that incident? Could we say that the huge fire that took place a couple of hours after that incident is what caused that incident to take place? Or could we say that the fire is what explains that incident? In fact, to claim a backward causal connection between the fire and that simple strike seems awkward. Because all that we can assert is an ontological relation between the previously occurring strike and the fire. But Peijnenburg by suggesting the later determination of the past seems to be suggesting that the occurrence of the fire is what explains the occurrence of the strike or even causes it. The causal direction of explanation goes from the strike to the fire. But the ontological as well as the epistemic determination of the occurrence of the strike as the start of a big fire goes the opposite direction. This determination shouldn't be understood as having any causal role. The occurrence of the fire doesn't cause or even explain the occurrence of the strike. But to apply this conclusion on Peijnenburg's example one might ask: why should the later secret affaire of the women in Peijnenburg's example be understood as having any causal connection with her one night thing. As far as I can see, Peijnenburg is confusing causal determination with mere ontological connection.

Does my argument imply that there can be no way of affecting past events and that the past is totally fixed? No, all that I want to say is that the believed process of the elimination of things that have already existed and acquired a certain kind of reality whether psychological or physical is not that accurate. Therefore, physical backward causation is the only type of causation that can be defended without committing logical inconsistencies. Present causes might bring about effects in the past or in the future, but when those effects are already there; their existence can't be eliminated or caused again. Any attempt to affect the past must be understood as an effort to shape it not to reshape it, i.e., to cause things to take place in it not to change their already existed realities; simply because as I asserted before, you can't cause the already caused thing whether this thing has a physical or psychological nature to be caused again in the same time and in the same place. If it is already there, then it would be a contradiction to try to cause it again to exist.

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