

Kant's refutation of Hume's position on causality

1. Introduction

It is well known that Hume raises three central concerns against the objective reality of causality: the first is over the necessity with which the cause is supposed to determine or produce its effect; the second relates to the principle according to which every event has a cause; and the third is over the legitimacy of inductively inferring causal laws from experiences of instances of these laws. Most of the commentators dealing with Kant's notion of causality agree that Kant's argument in favor of the second analogy is meant to address these three concerns in one way or the other. They are divided over the question of which of these three concerns Kant's argument is meant to address, and over the question of whether his argument succeeds: while proponents of a "weak" reading (most notably Allison and Strawson) believe that his argument is supposed to address only the first two, proponents of a "strong" reading (most notably Friedman and Guyer) assume that it is meant to address all three; and while some (most notably Strawson and Melnick) believe that his argument fails, others (most notably Allison and Friedman) hold or suggest that it succeeds. But virtually all commentators agree that Kant argues in favor of the second analogy in order to refute (an important part of) Hume's position on causality.

Eric Watkins's work on Kant's notion of causality represents an important exception to this agreement. Watkins points to a neglected passage in the second analogy of experience which indicates that what Kant means by 'cause' is not an event but a causal power: a power or disposition that is borne by a substance, and that, when active, brings about its effect, i.e. a change of the states of another substance, by generating a continuous flow of intermediate states of that substance.¹ Watkins concedes that for Kant, an effect is an event. But he also argues at length that Hume and Kant favor different ontologies: that for Hume, events are instantaneous states of affairs at particular moments in time, while for Kant they are objective successions of the states or determinations of a thing.² And this ontological difference, Watkins maintains, "makes it impossible for one [...] to find a refutation of Hume's position in Kant's explicit arguments".³

Watkins has to be credited with pointing out in a particularly clear and thorough fashion that for Kant, events are not the same as for Hume, that what Kant means by 'cause' is a

¹ Watkins, Eric: *Kant and the Metaphysics of Causality*. Cambridge 2005, 251f., 255f.

² Watkins, Eric: *Kant and the Metaphysics of Causality*. Cambridge 2005, 232-7.

³ Watkins, Eric: *Kant and the Metaphysics of Causality*. Cambridge 2005, 17.

causal power and not an event (in either the Humean or Kantian sense), and that Hume's and Kant's ontologies are radically different. Too many commentators have completely overlooked that what Kant has in mind when using the terms 'cause' or 'causality' is not an event or a relation between (types of) events, and that for Kant an event is not the same as for Hume. Watkins's interpretation, however, remains problematic in an at least twofold sense. The first problem is that he moves on to identify the critical Kant's concept of power with his pre-critical notion of real ground and to claim that Kant's "main" argument in favor of the second analogy is supposed to show that real grounds are a necessary condition of our knowledge of events.⁴ This move is problematic because textual evidence and architectonic considerations suggest that Kant's concept of power coincides with his category of causality, and that his main argument in support of the second analogy is meant to establish the category of causality (and its corresponding schema) as a transcendental condition of (our knowledge of) events. The second problem is that Kant's endorsement of an ontology that is radically different from Hume's doesn't imply that a "lack of a shared vocabulary makes it impossible for one [...] to find a refutation of Hume's position in Kant's explicit arguments".⁵

Since I've dealt with the first problem in another paper,⁶ I'd like to elaborate on the second problem in the present paper. I'd like to argue that Kant's main argument in favor of his second analogy has to be supplemented with his argument against the thesis of the second antinomy in order to amount to a refutation of an important part of Hume's position on causality: in order to successfully address at least the second of Hume's three challenges. (I'm not going to deal with the question of whether Kant is also able to successfully address the first and third of Hume's three challenges.) The thesis of the second antinomy ("nothing exists anywhere except the simple or what is composed of simples") is assigned to the position of the dogmatist but, interestingly, expresses a fundamental principle of Hume's ontology. If Kant's argument against the thesis of the second antinomy is successful, then he can argue that events have to be regarded as continuous changes of the states or determinations of a thing and not (in the Humean sense) as instantaneous states of affairs at particular moments in time, then any argument showing that the category of causality is a transcendental condition of events or of our experience of them is also binding for Hume, and then this argument combines with Kant's argument against the thesis of the second antinomy

⁴ Watkins, Eric: *Kant and the Metaphysics of Causality*. Cambridge 2005, 209f., 213.

⁵ Watkins, Eric: *Kant and the Metaphysics of Causality*. Cambridge 2005, 17.

⁶ Henschen, Tobias: *Kant on causal laws and powers*. In: *Studies in History and Philosophy of Science* 48 (2014/4), 20-29.

to refute an important part of Hume's position on causality, i.e. to successfully address at least the second of Hume's three challenges.

In the remainder, I will first compare Hume's and Kant's causal ontologies. I will then delineate Kant's argument against the thesis of the second antinomy and present it as a complement to his argument in support of the second analogy. I'm not going to provide any reconstruction of Kant's argument in support of the second analogy but will simply assume that it successfully shows that the category of causality is a transcendental condition of events or our experience (or knowledge) of them.

2. Hume's and Kant's causal ontologies

Entities that are primitive in Hume's ontology are events that "seem entirely loose and separate".⁷ Ontologically primitive events seem entirely loose and separate because they are real units, and because units aren't real unless they are "perfectly indivisible, and incapable of being resolv'd into any lesser unity".⁸ Hume derives the indivisibility of real units from the finite divisibility of space and time. He thinks that real units couldn't be perfectly indivisible unless space and time were only finitely divisible, and that space and time are indeed only finitely divisible: "every moment must be distinct from, and posterior or antecedent to another. 'Tis certain then, that time, as it exists, must be compos'd of indivisible moments. [...] The infinite divisibility of space implies that of time [...]. If the latter [...] be impossible, the former must be equally so."⁹

If worlds are made up of entirely loose and separate events, then there can't be any necessary connections between them, and then a strictly empiricist understanding of causation cannot rely on the notions of power or necessary connection. The only definition that we end up with is the definition offered by Hume toward the end of section 7 of his *Enquiry Concerning Human Understanding*: "we may define a cause to be *an object, followed by another, and where all the objects similar to the first, are followed by objects similar to the second.*"¹⁰ Note that while in this definition, Hume speaks of objects, not events, 'object' may be taken to be synonymous with 'event' as long as objects are considered as real units.

It seems that Kant simply adopts the first of Hume's three definitions when saying that the concept of causality "always requires that something *A* be of such a kind that something else

⁷ Hume, David: *Enquiry Concerning Human Understanding*. Ed. Tom L. Beauchamp. Oxford 2010, 144.

⁸ Hume, David: *A Treatise of Human Nature*. Ed. David F. Norton and Mary J. Norton. Oxford 2009, 25.

⁹ Hume, David: *A Treatise of Human Nature*. Ed. David F. Norton and Mary J. Norton. Oxford 2009, 26.

¹⁰ Hume, David: *Enquiry Concerning Human Understanding*. Ed. Tom L. Beauchamp. Oxford 2010, 146. It is well known that Hume offers two additional definitions in this passage, but these additional definitions can be ignored in the present context.

B follows from it *necessarily* and *in accordance with an absolutely universal rule*”,¹¹ or when defining the schema of causality as “the real upon which, whenever it is posited, something else always follows. It therefore consists in the succession of the manifold insofar as it is subject to a rule.”¹² It is true that Hume’s definition (unlike Kant’s) makes no mention of the necessity of a relation between cause and effect. But Kant’s talk of something *B* following from something *A* suggests that for him (just as for Hume), causality is a relation between types of events. Many commentators¹³ have accordingly interpreted the Kantian notion of causality as one of a (universal) relation holding between types of events.

Both passages have a different ring, however, when the following passage is considered:

“[C]ausality leads to the concept of action, this to the concept of power, and thereby to the concept of substance. [...] Where there is action, consequently activity and power, there is also substance [...]. Now since all effect consists in that which happens, consequently in the changeable, which indicates succession in time, the ultimate subject of the changeable is [...] the substance. For according to the principle of causality actions are always the primary ground of all change of appearances, and therefore cannot lie in a subject that itself changes, since otherwise further actions and another subject, which determines this change, would be required. Now on this account action, as a sufficient empirical criterion, proves substantiality.”¹⁴

This passage certainly comes as a bit of a surprise. While the first two passages deal with the concept of causality directly, the third passage is concerned with the concept of substance and (even if it appears in the Second Analogy) only uses the concept of causality to develop an argument that is supposed to prove (the objective validity of the category of) substantiality. Yet while the first two passages seem to be loose enough to allow for an understanding of the relation of causal relations in accordance with Hume’s definition, the third passage is much more specific in that it distinguishes a causal power with a substance as its bearer,

¹¹ Kant, Immanuel: *Critique of Pure Reason*. Transl. and ed. Paul Guyer and Allen W. Wood. Cambridge 1998, A91/B123f.

¹² Kant, Immanuel: *Critique of Pure Reason*. Transl. and ed. Paul Guyer and Allen W. Wood. Cambridge 1998, A144/B183.

¹³ E.g. Guyer, Paul: *Kant and the Claims of Knowledge*. Cambridge: 1987, 250; Allison, Henry. E.: *Kant’s Transcendental Idealism*. New Haven 2004 (2nd edition), 247; Melnick, Arthur: *The Second Analogy*. In: *A Companion to Kant*. Ed. Graham Bird, Oxford 2006, 169, 171.

¹⁴ Kant, Immanuel: *Critique of Pure Reason*. Transl. and ed. Paul Guyer and Allen W. Wood. Cambridge 1998, A204f./B249f. Translation modified: the translators translate “Kraft” by “force” in A204f./B249f. and by “power” in A648-651/B676-679; since in both contexts “Kraft” means the same thing and “power” has been the preferred expression so far, “force” in A204f./B249f. has been replaced by “power”.

manifestations of this power (objective successions of the states of another substance) and activities or actions as the ground of these manifestations. Note, however, that Watkins has a convincing story for why passages like this weren't as surprising for Kant's contemporaries as for us: the causal power conception had been the prevalent conception of causality in the 18th century.¹⁵

Kant elaborates on this conception by claiming that all alteration (or temporal change of the states of a thing) complies with the so-called law of continuity:

“Now every alteration has a cause, which manifests its causality in the entire time during which the alteration proceeds. Thus this cause does not produce its alteration suddenly (all at once or in an instance), but rather in a time [...]. All alteration is therefore possible only through a continuous action of causality. [...] That is, now, the law of the continuity of all alteration, the ground of which is this: that neither time nor appearance in time consists of smallest parts, and that nevertheless in its alteration the state of the thing passes through all these parts, as elements, to its second state.”¹⁶

Together with the previous passage, this passage presents quite a clear picture of what Kant has in mind when using the terms “causality” or “cause”. A cause is a power that is borne by a substance. When this power is active or acts, it brings about its effect that, for Kant, is an event in the sense of ‘a change of the states or determinations of another substance’ or ‘an alteration of this other substance’. When bringing about its effect, the causal power acts uniformly: it doesn't jump from one boundary state to the next but generates a continuous flow of intermediate states of a substance. An epistemic subject cannot perceive these intermediate states but only the boundary states. It is clear, however, that a substance has to pass through these intermediate states when a change from one of its boundary states to the next is brought about by the action of a causal power that is borne by another substance. It is obvious then that the first two passages are not to be understood in terms of Hume's definition. Hume's definition relates to constant conjunctions of types of indivisible units. The first passage, by contrast, must be read as referring to a causal power (“something *A*”) and an event or alteration of a thing (“something *B*”) that follows from this power “*necessarily and in accordance with an absolutely universal rule*”. And the second passage

¹⁵ Watkins, Eric: *Kant and the Metaphysics of Causality*. Cambridge 2005, chapter 1.

¹⁶ Kant, Immanuel: *Critique of Pure Reason*. Transl. and ed. Paul Guyer and Allen W. Wood. Cambridge 1998, A208f./B253f.

must be read as defining the schema of causality as the succession of the states (“the manifold”) of a substance insofar as this succession is (thought of as) temporally determined by the activity of a causal power.

Watkins identifies Kant’s concept of power with his pre-critical concept of real ground. But when taking into account that causality figures as the second of the three categories of relation in Kant’s table of categories, it is only a small step to realize that the critical Kant’s concept of power is the category of causality. This concept is pure in that it doesn’t presuppose “the actual presence of the object”.¹⁷ It doesn’t presuppose the actual presence of the object because causality cannot be experienced at all. And causality cannot be experienced because nothing can be experienced unless it is temporally determined, and because a causal power cannot be temporally determined because temporal determination is the result of the activity of a causal power. The pure concept of causality is also *a priori* because it is a transcendental condition of the perception (or experience) of an objective succession.

3. Kant’s argument against the thesis of the second antinomy

Watkins is right, however, when claiming that Hume’s and Kant’s causal ontologies are radically different: Kant conceives of causality as a relation holding between a power and its manifestation (and not as a relation between types of events), and he understands a power’s manifestation as an event in the sense of a continuous change of the intermediate and boundary states of a substance (and not as an event in the Humean sense of an indivisible real unit). Does it follow, however, that Kant lacks the vocabulary to argue against Hume that the category of causality is a necessary condition of events or of our knowledge of them? I take it that this doesn’t follow if Kant is able to show that there cannot be events in the Humean sense. I also hold that Kant’s argument against the thesis of the second antinomy is meant to show that there cannot be events in the Humean sense.

In its *Prolegomena* formulation the thesis of the second antinomy states: “Everything in the world is constituted out of the *simple*.”¹⁸ And Kant’s argument against this thesis can be reconstructed as follows:

(P1) There is nothing in the world that is not an object of a possible experience.

(P2) It is not the case that a progress to the parts of an object is given along with it, if this object is experienced.

¹⁷ Kant, Immanuel: *Critique of Pure Reason*. Transl. and ed. Paul Guyer and Allen W. Wood. Cambridge 1998, A50/B74.

¹⁸ Kant, Immanuel: *Prolegomena to Any Future Metaphysics*. Transl. and ed. Gary Hatfield. Cambridge 2004, §51.

(P3) It is not the case that anything in the world is constituted out of the simple unless a progress to its parts is really already given along with it.

(C) It is not the case that anything in the world is constituted out of the simple.

The first premise follows from Kant's definition of the term "world" as "the mathematical whole of all appearances and the totality of their synthesis [...] in the small, i.e. in their progress [...] through division".¹⁹ The terms "appearance" and "object of a possible experience" can be taken to be coextensive.²⁰ But speaking of objects of a possible experience has the advantage of rendering P1 more acceptable to the Humean: unlike "appearance", "object of a possible experience" doesn't need to be defined in terms of the subjective conditions of our experience (space, time or the categories). The second and third premises are applications of the general case that Kant describes when saying that "[i]f the conditioned is given, then through it a regress in the series of all conditions for it is *given* to us *as a problem*" (where "the conditioned" is an object of experience and "a regress in the series of all conditions for it" a "progress through division" or progress to its parts), and that

"[i]f the conditioned as well as its condition are things in themselves, then when the first is given not only is the regress to the second *given as a problem*, but the latter is thereby really already given along with it; and, because this holds for all members of the series, then the complete series of conditions, and hence the unconditioned is thereby simultaneously given".²¹

Kant's endorsement of (C) certainly doesn't imply his acceptance of the antithesis, i.e. of the statement that "[t]here is nothing simple, but everything is *composite*".²² It may appear that Kant's law of continuity immediately derives from the antithesis. Note, however, that an argument against the antithesis can be reconstructed in a way analogous to the argument reconstructed above, and that Kant is making a subtle distinction when saying that "it is by no means permitted to say of [...] a whole, which is divisible to infinity, that *it consists of*

¹⁹ Kant, Immanuel: *Critique of Pure Reason*. Transl. and ed. Paul Guyer and Allen W. Wood. Cambridge 1998, A418/B446.

²⁰ cf. Kant, Immanuel: *Critique of Pure Reason*. Transl. and ed. Paul Guyer and Allen W. Wood. Cambridge 1998, A238f./B298.

²¹ Kant, Immanuel: *Critique of Pure Reason*. Transl. and ed. Paul Guyer and Allen W. Wood. Cambridge 1998, A498/B526.

²² Kant, Immanuel: *Prolegomena to Any Future Metaphysics*. Transl. and ed. Gary Hatfield. Cambridge 2004, §51.

infinitely many parts".²³ What Kant wants to say is that an infinite progress to the parts of an experienced object is given to us as a problem, and that we cannot know on the basis of our experience whether this object is indeed infinitely divisible. Kant says that the proposition that an infinite progress to the parts of an experienced object is given to us as a problem is "analytic" and "a logical postulate of reason".²⁴ And it is this proposition (and not the antithesis) from which Kant's law of continuity derives.

It is curious that Kant assigns the thesis of the second antinomy to the dogmatist, and not to the empiricist (cf. the third section of the Antinomy of Pure Reason). Does this mean that this thesis must not be ascribed to Hume? I don't think that this follows. It rather seems that Hume's claim that it is "evident, that existence in itself belongs only to unity, and is never applicable to number", and that "unity [...] must be perfectly indivisible, and incapable of being resolved into any lesser unity",²⁵ is a dogmatist relict in an otherwise progressively empiricist position. Kant criticizes this dogmatist relict when advancing the argument reconstructed above. And this argument combines with Kant's argument in favor of the second analogy to refute an important part of Hume's position on causality, i.e. to establish the principle that every event has a cause.

²³ Kant, Immanuel: *Critique of Pure Reason*. Transl. and ed. Paul Guyer and Allen W. Wood. Cambridge 1998, A524/B552.

²⁴ Kant, Immanuel: *Critique of Pure Reason*. Transl. and ed. Paul Guyer and Allen W. Wood. Cambridge 1998, A498/B526.

²⁵ Hume, David: *A Treatise of Human Nature*. Ed. David F. Norton and Mary J. Norton. Oxford 2009, 25.