

# Kant on Time and Change: A Series, B Series, or Both?

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## Abstract

When interpreters orient Kant in relation to contemporary philosophy of time, they claim that the B series is dependent on the A series. However, I claim that the opposite direction of dependence is also supported, due to Kant's position that change is both intelligible and involves incompatibility. This paper extends the contemporary description of Kant's philosophy of time to show that Kant endorses the interdependence of A series and B series views on time.

**Keywords:** Kant, A series, B series, Idealism, Change, Contradiction

## 1 Introduction

This paper argues that the properties and relations that constitute the A and B series are interdependent in Kant's philosophy of time. Arthur Melnick (2004 [12]) and Ralph Walker (2017 [15]) claim that Kant's idealism implies that B series relations depend on A series properties. Interestingly, the issue of whether the A series properties might also depend on the B series relations is not explicitly discussed in the Kant literature. My interpretation claims that the dependence of A series properties on B series relations stems from two of Kant's commitments about change: change is the combination of incompatible predicates in a single subject, and change is intelligible. Taking this together with the results from

Melnick and Walker, this supports an interpretation in which A series properties and B series relations are interdependent.

Kant did not frame his philosophy of time around the distinction between A series properties and B series relations. Despite this, we can use these categories to try to capture an aspect of the issues that Kant attempted to address in his theory of time. Contemporary discussions of the A series / B series distinction are formulated in terms of various metaphysical commitments that are sometimes also combined with semantic claims. L.A. Paul (2010 [13]) emphasizes issues about the relationship between A series properties, the relation of temporal passage, and B series relations (333–334 and 337, [13]). Natalja Deng (2017, [10]) characterizes the B series proponent as holding the position that all times exist and that the B-theoretic descriptions of the world are privileged (p. 239, [10]). As Kant very rarely makes any claims about language in the *Critique of Pure Reason* [1], we will focus on the metaphysical side of the issue. Moreover, following the Kantian literature, this discussion will only concern the status of A series properties and B series relations and not the opposition between eternalist and non-eternalist positions.

I hope to show that Kant's insights into time and change enable a fruitful perspective on the A series / B series debate.<sup>1</sup> An opposition between A series proponents and B series proponents dominates contemporary discussions of philosophy of time. For example, Arthur Prior insisted that the language of the A series was more fundamental as a description of reality than the language of the B series, and this insistence was based on his desire to account for change.<sup>2</sup> In general, endorsement of the A series can be seen as an expression of a commitment to the fundamental reality of change because descriptions of B series relations are eternal truths when true. Kant's position provides an interesting foil to the contemporary narrative on the A series: reflection on his dynamic account of change can be shown to motivate the dependence of the A series properties on B series relations. This is not to say that B series relations are more fundamental than A series properties; his position can be understood as one in which neither is more fundamental than the other. Relatedly, this discussion does not assume that dependence

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<sup>1</sup>McTaggart (1908) cites Kant in his seminal paper that develops the distinction. See McTaggart, "The Unreality of Time", 31 [11].

<sup>2</sup>For a representative passage of argumentation that indicates this point, see Prior, "Thank Goodness That's Over", 13 [14].

is an asymmetric relation.<sup>3</sup> Instead, it is argued these properties and relations are interdependent, but separable, aspects of our representation of temporal change.<sup>4</sup>

Section 2 presents the extant case in the literature for the dependence of the B series relations on the A series properties based on Kant's temporal idealism. Granting the claim that Kant's idealism has this implication, it is argued that there remains an issue about whether the A series properties might *also* depend on the B series relations. Section 3 presents an argument for the dependence of the A series properties on the B series relations based on Kant's commitment to the incompatibility and intelligibility of change as an object of experience. This section argues that, for Kant, the intelligibility of the incompatible changing A series properties depends on B series relations. Taking this result from Section 3 together with that of Section 2, the relationship between A series properties and B series relations is one of interdependence rather than fundamentality. Section 4 provides a brief summary of the significance of Kant's position for the contemporary A series and B series debate.

## 2 Kant and the Dependence of the B series on the A series

This section focuses on Walker as a representative of the current stance in the Kant literature on the relationship between A series properties and B series relations.<sup>5</sup> This discussion is not intended to refute Walker's

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<sup>3</sup>In "Symmetric Dependence", Elizabeth Barnes [9] argues that dependence is not always an asymmetric relation.

<sup>4</sup>In "The Unreality of Time", McTaggart relies on a significant claim about change in his argument for the unreality of time: time depends on change. However, he never provides a definition of change. McTaggart's argument for idealism cannot be fully analyzed without an identification of the kind of change that is required for time.

<sup>5</sup>In *Themes in Kant's Ethics and Metaphysics*, Melnick connects the dependence of the B series on the A series with Kant's idealism understood as constructionism:

... in Kant's account before and after (viz., McTaggart's B series) are not "constructible" apart from my presently being up to a certain stage in temporizing (the "cut" between the past and the present that belongs to McTaggart's A series). Since the B series exists in construction only as dependent upon and fixed in terms of the A series, McTaggart's argument, which depends in effect on an independent B series, is blocked.

(Melnick 2004, p. 120 [12])

argument for the dependence of B series relations upon A series properties. Based on Kant's temporal idealism alone, it is plausible to think that B series relations are only something in relation to A series properties. However, I argue that the current discussion is incomplete because Kant's commitment to *transcendental* temporal idealism leaves open the possibility that A series properties also depend on B series relations. This possibility is further examined in Section 3.

Consider a passage from Walker that orients Kant in relation to McTaggart's distinction between the A and the B series.<sup>6</sup>

For Kant time is a form of intuition. Time and space are matrices which we use to order the data given to us. As such, they are inevitably indexical, understood in terms of 'now' and 'here'. This is the "time" of McTaggart's A series, the series of events understood in terms of past, present, and future. Like McTaggart, Kant would have held that it is only through this that we can understand the B series of 'before', 'after', and dating systems. (Walker 2017, p. 209 [15])

Here Walker points out that time and space are identified with structures that order the perception of temporal and spatial things. In this way, time and space have an indexical character as always linking us to a now and a here, respectively. The divide between A series and B series positions hinges on the issue of whether there is a metaphysical difference between the present in contrast to the past and future. B series relations of being earlier than, later than, and simultaneous with do not depend on any privileged present moment, while A series properties do so depend. In this way, A series properties change, while B series relations remain. Walker's claim is that the indexical structure of inner sense implies that our cognitive grasp of B series relations depends on the experience of a privileged now—an A series property.

I agree with Walker's claim that inner sense has an indexical nature that in turn implies the dependence of the representation of B series relations upon A series properties.<sup>7</sup> However, reflecting on Kant's *transcendental* idealism suggests that this is not the complete story. Kant

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<sup>6</sup>Walker, *Kant and the Philosophy of Mind: Perception, Reason, and the Self*, 209 [15].

<sup>7</sup>I do not have the space to fully examine Walker's argument here. Ralf Bader's "Inner Sense and Time" (2017 [7]) also provides a defense of a similar view that time as the form of inner sense has an indexical nature.

distinguishes between time and temporal relations of objects, and his idealism identifies time with that which enables us to perceive the temporal relations of objects. In other words, time is distinct from temporal relations of objects themselves. On this reading, Walker's argument focuses on the status of the B series relations of objects by emphasizing the series of temporal relations of events. Thus, Kant's *transcendental* idealism makes it requisite to also consider the structure of time itself, beyond the objects that it indexically links us to. This is especially important because the role of inner sense in making the perception of the temporal now possible contrasts with the role of outer sense in making the perception of the spatial here possible. Though they are both indexical and thus perspectival in nature, there are unique issues about awareness of the A series now that requires attention. In particular, the next section argues that the *a priori* representation of B series relations enables awareness of the A series now.

### **3 Kant and the Dependence of the A series on the B series**

This section shows that Kant describes the formal structure of inner sense in terms of B relations in order to render the incompatibility in change intelligible. This means that insofar as the A series properties of objects are intelligible, they depend on B series relations. Taking this together with result of Section 2, it will be argued that the representation of A series properties and B series relations are cognitively interdependent. I argue that the B series relations provide the *a priori* form of inner sense that enables A series contents, but the B series relations are only temporal insofar as they are the structure of A series contents.

To begin with, understanding Kant's account of time requires attention to his methodology in developing his unique idealism. It is useful to consider that Kant's early criticism of Leibniz in the 1755 *New Elucidation* [2] is that a pre-established harmony account of causation is incompatible with change and therefore incompatible with time (1: 410). Though this critique from his early writings does not determine precisely how time and change relate to each other on his early view, it nonetheless shows that Kant takes them to be related in some way. The relationship between time and change becomes clearer in the context of Kant's 1770 *Inaugural Dissertation* [3]: Kant claims that we can only

represent change through the pure intuition of time (2: 401). The pure intuition of time is a representation that derives from the structure of the mind rather than sensation, and it relates us to a single time as a medium in which all temporal objects are oriented. In particular, the function of the pure intuition of time is to enable us to represent the irreducibly temporal incompatibility in change (2: 401). Kant's account of the relationship between time and change culminates in the 1787 B edition of the *Critique of Pure Reason*. It is here that we can see most clearly how his position on change leads him to a view that can be described as maintaining that the A series properties depend on B series relations.

As a preliminary point, it is important to note that Kant's critical position is that time presents relations rather than properties. More precisely, Kant claims that time as the structure of inner sense contains *only* relations:

... that which, as representation, can precede any act of thinking something is intuition and, if it contains nothing but relations, it is the form of intuition ... (B67 [1])

Time as a form of intuition is intended to explain our perception, along with our theoretical cognition, of the world. The inherently relational character of our empirical awareness suggests that the *a priori* structure of inner sense is not that of A series properties. However, this is only a negative argument to prepare for further examination of inner sense's structure.

The transcendental exposition of the concept of time is a section added to the B edition of the *Critique of Pure Reason* that describes the function of inner sense:

Here I add further that the concept of alteration (*Veränderung*) and, with it, the concept of motion (as alteration of place), is only possible through and in the representation of time—that if this representation were not *a priori* (inner) intuition, then no concept, whatever it might be, could make comprehensible the possibility of an alteration, i.e., of a combination of contradictorily opposed predicates (e.g., a thing's being in a place and the not-being of the very same thing in the same place) in one and the same object (*Objecte*). Only in time can both contradictorily opposed determinations in one thing be encountered, namely successively. (B48–49, [1])

Here Kant claims that our thought of alteration depends on a pure inner intuition of time.<sup>8</sup> This pure intuition is a representation of succession that does not derive from sensation but rather structures the relation between our representational states. To deal with the incompatibility in alteration, Kant maintains that this change is dynamic. This means that it involves a coming into existence of a state and a coming out of existence of a state because a single thing cannot have both contradictory properties at the same time.<sup>9</sup> Notably, such dynamic change is often associated with proponents of the A series and thus, serves as a point of connection with Kant. However, Kant's transcendental exposition of the concept of time aims to explain how we can encounter such dynamic change, and for this task he appeals to an "a priori inner intuition" of succession. To better understand this, we should examine Kant's account of the pure representation of time in the context of 18<sup>th</sup> century philosophy of time, to which we now turn.

Dynamic accounts of change raise the following issue for an account of time awareness. At any moment we can only perceive the present state of an object because the past states no longer exist. Thus, we require an explanation of how a mere sequence of representations can be converted into a representation of the A series now as something that changes over time. In other words, the issue concerns how change comes to be a perceptible content. Crucially, the changeable status of the temporal now is what distinguishes it from the spatial here. Augustine provides a seminal statement of this problem in Book XI of the *Confessions*. In Book XI, Augustine's solution is to say that our awareness of the now is due to it being part of a structure in which one remembers the past and expects the future. However, Augustine's solution cannot resolve the problem of how the A series now comes to be a perceptible content because it is circular; it assumes that we already have access to a change through the memory of something's being past.<sup>10</sup> Not only was

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<sup>8</sup>Notably, the "inner" status of the intuition of time is not clearly developed in the *Inaugural Dissertation* [3], and its first explicit appearance occurs in the famous 1772 letter to Herz (10:134) [4]. Kant also raises the "fundamental question of metaphysics" in this letter, and it is widely considered to mark Kant's transition to his critical period.

<sup>9</sup>This position is also reflected in Kant's inference in the Analogies that "... A would belong to a past time, and thus can no longer be an object of apprehension (*Gegenstand der Apprehension*)" (A211/B258).

<sup>10</sup>Adrian Bardon makes a related Kantian point that Augustine's account cannot answer the question of the origin of our temporal representation. See Bardon, *A Brief History of the Philosophy of Time*, 26 [8].

Augustine's discussion of this problem standard background in the 18<sup>th</sup> century, but Kant also quotes Book XI of the *Confessions* in his writings on time.<sup>11</sup>

Kant's appeal to a *pure* intuition of time resolves the problem of how the changing now comes to be a perceptible content. The now serves as the ever-changing boundary of the past. But if the past states of an object no longer exist in the current moment, then the representation of succession does not derive from sensation. As a result, we need an *a priori* representation of succession if change is to become available as a perceptible content. In other words, rather than a sensation of succession there is a successive structure of the mind that enables the perception of successive states. This pure succession cannot be the representation of A series properties on pain of circularity. Instead, this *a priori* representation of unchanging B relations of succession is what enables the perception of the A series now. Thus, the *a priori* representation of B series relations makes the incompatibility in change intelligible in the sense that it makes dynamic change available to consciousness and, in turn, enables the thought of change.

Let us conclude by returning to Walker's claim that B series relations cognitively depend on A series properties. On Walker's view, Kant's temporal idealism is the position that inner sense has an indexical structure that picks out a privileged now. On one hand, the indexical status of time accounts for the way in which our time awareness is perspectival in its ordering, and thus emphasizes the privileged A series now. On the other hand, the purpose of the *a priori* representation of B series relations is to enable our awareness of dynamic A series contents. In this way, the structure of our awareness of A series contents is inextricably tied to our representation of B series relations. However, the *a priori* representation of B series succession would be empty without a relation to its A series contents. Given this, neither is to be preferred to the other. On Kant's view, B series relations and A series properties are separable and mutually supporting as the form and content of our representation of temporal change.

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<sup>11</sup>In his 1762 *Inquiry* [6], Kant cites a well-known quote from book XI: "What then is time? Provided that no one asks me, I know" (2: 284).

## 4 Conclusion

Kant's philosophical writings reveal a longstanding commitment to account for change, which culminates in the B edition of the *Critique of Pure Reason*. I have argued that Kant's account of change leads to a position upon which neither A series properties nor B series relations are more fundamental due to Kant's position that change is both intelligible and involves incompatibility. Though Kant's position on time is tied up with his idealism, reflection on his argumentative strategy provides a methodological insight that is useful for understanding contemporary debates. We might approach the A series / B series debate by re-examining the considerations that ground the perceived opposition between these positions. The contemporary proponent of the A series emphasizes that A series properties are changeable, while B series relations are static. In light of this, we might first consider our preferred account of change and then determine whether A series properties and B series relations might play complementary roles in accounting for change.

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