

# KANT ON THE NECESSITY OF CAUSAL RELATIONS\*

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## Abstract

There are two traditional ways to read Kant's claim that every event necessarily has a cause: the weaker *every-event some-cause* (WCP) and the stronger *same-cause same-effect* (SCP) causal principles. The focus of the debate about whether and where he subscribes to the *SCP* has been in the Analogies in the *Critique of Pure Reason* (Guyer, Allison, and Watkins) and in the *Metaphysical Foundations of Natural Science* (Friedman). By analysing the arguments and conclusions of both the Analogies and the Postulates as well as the two Latin principles *non datur casus* and *non datur fatum* that summarise their results, I will argue for the novel thesis that the *SCP* is actually demonstrated in the Postulates of the *First Critique*.

## 1. Introduction

Causality and necessity have traditionally been tightly intertwined, and Kant makes no exception. He frequently connects causality with necessity and holds that 'the very concept of a cause [...] obviously contains the concept of a necessity of connection with an effect' (B5).<sup>1</sup> Yet causality and necessity can be connected in many ways. There is, first, no logical contradiction in merely contingent causality: something could produce varying effects without any regularity and still qualify as a cause in the sense of necessarily bringing *something* about. Kant's claim above does not deny such contingency; it states a mere analytic truth about the *meaning of cause*: that *causes* necessarily produce *effects*. This analytic proposition can be contrasted with the synthetic one that every *event* necessarily has a cause,<sup>2</sup> which in turn can

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<sup>1</sup> Translations of Kant's works are from the *Cambridge Edition of the Works of Immanuel Kant*. References follow the *Akademie-Ausgabe* (AA 1–28) pagination, except for the *Critique of Pure Reason*, for which the original 1781 (A) and 1787 (B) edition paginations are used.

<sup>2</sup> Cf. A6/B10, A9/B13.

be read in two ways: that every event necessarily has just *some* cause or that the *same* causes necessarily bring about the same effects (and, *ceteris paribus*, same events). Ever since Lewis White Beck's 'A Prussian Hume and a Scottish Kant' (1978), the two synthetic alternatives have been known as the *every-event some-cause* and the *same-cause same-effect* principles – or the *weak causal principle* (WCP) and the *strong causal principle* (SCP).<sup>3</sup>

There exist several competing interpretations of whether and where Kant subscribes to the weak and strong causal principles. Especially the section of the *Critique of Pure Reason* (*Critique* for short) called Analogies of Experience (Analogies) that argues for the objective reality of causality remains a great divider among Kant interpretations. According to Henry Allison, the Analogies seek to 'establish the [weaker] every-event-some-cause principle' (Allison 2004, 247).<sup>4</sup> Paul Guyer, by contrast, takes the Analogies to explicitly argue for the necessity of *particular causal laws* and hence for the strong causal principle (Guyer 1987, 252). Michael Friedman, in turn, argues that although in the *Critique* Kant 'does very little to explain' (Friedman 1992, 176) how the *SCP* is grounded, in the *Metaphysical Foundations of Natural Science* (*Foundations*, 1786) Kant establishes it by subsuming particular causal laws under the universal causal principle (the *WCP*) (Friedman 1992, 185–7). Finally, Eric Watkins argues that although Kant does not explicitly prove the *SCP* in the Analogies, he is committed to it and grounds it there implicitly (Watkins 2005, 287 ff.).<sup>5</sup>

Although these interpretations might seem to exhaust the logical space of alternatives, I believe that they underestimate or even overlook the importance of the section in the *Critique* called The Postulates of Empirical Thinking in General (Postulates).<sup>6</sup> In this section, which

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<sup>3</sup> Cf. Allison 2004, 246, 256, 272; and Watkins 2005, 203, 215f, 286.

<sup>4</sup> Cf. Strawson 1966, Buchdahl 1969, and Beck 1978.

<sup>5</sup> For further discussion of these views, see Allison 2004, 256–8, and Watkins 2005, 203–4, 287n63.

<sup>6</sup> Existing literature on Kant's theory of modality present little relevant discussion about its relation to causality (cf. Schneeberger 1952, Grünwald 1986, Wingendorf 2001, Motta 2007 & 2012, Greenberg 2008, and Mosser 2008). Neither Allison nor Watkins refer to the Postulates (except in passing). Guyer belongs to the long ranks of interpreters that belittle the Postulates (Guyer 1987, 275; 1998, 299; cf. Strawson 1966, 31; Adickes 1889, 233–4n; Kemp Smith 1962, 400). Although Friedman does discuss the Postulates, he does not recognize its decisive role in Kant's overall argument: he grants that Kant 'explicitly emphasizes' the link of 'causal uniformity with necessity' in the Postulates (Friedman 1992, 171; cf. *ibid.*, 180) but does not consider the possibility that Kant is not

immediately follows the Analogies, Kant presents (*inter alia*) his theory of real or metaphysical necessity and explicates its relationship to causality. In this paper I will argue that while Kant meant for the Analogies to justify the *WCP*, he in fact intended the postulate of necessity to justify the *SCP*. Thus, although *contra* Guyer the *SCP* is not proven in the Analogies, Kant does *contra* Allison nonetheless subscribe to it, yet does not *contra* Friedman postpone its (explicit) justification to the *Foundations* either. My claim also stands in contrast with Watkins's attempt to seek support for the *SCP* in what he identifies as implicit theses of the Analogies as well as in Kant's pre-critical doctrines (*ibid.*, 204, 216, 286–8).

I will argue for my thesis in two steps. First I will show that the *WCP* is the explicit principle of the Second Analogy (3.1) and that its argument also supports only the weaker principle (3.2). I will then show that the function Kant assigns to the postulate of necessity requires that it grounds the *SCP* (4.1 & 4.2) and that its explicit formulation is likewise the *SCP* (4.3). Note that my only aim in this article is to show where Kant himself sought to justify the *SCP*. A detailed analysis and assessment of this justification requires a separate treatment.<sup>7</sup>

## **2. The Weak and the Strong Causal Principles**

One way to clarify the modal difference between the weak and the strong causal principles is via *de re* and *de dicto* modality. Consider Kant's modally ambiguous claim that 'if [the cause] is posited, [the effect] would necessarily have to follow' (A201/B246). On the *de dicto* reading of it, the necessity concerns the whole judgement: 'necessarily, if the cause is posited, the effect follows'. On the *de re* reading, the necessity pertains to the causal relation itself, making it necessary: 'if the cause is posited, the effect follows necessarily'. (*Ceteris paribus* is presupposed here and throughout.)<sup>8</sup>

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merely *emphasising* but *justifying* it in the Postulates. Although Friedman later (2012) assigns a greater role to the Postulates, his main thesis remains intact. I know of only one article that focuses on Kant's theory of necessity in connection with causality: Markku Leppäkoski's 'The Transcendental Must: Kant's Various Notions of Necessity' (2001).

<sup>7</sup> I have discussed this in Kannisto 2012. For an analysis of postulation and modality, see also Motta 2012.

<sup>8</sup> By denoting 'x causes y' by  $xCy$ , the two readings can be formulated as follows. In the *de dicto* reading the necessity-operator is in front of the quantifiers:  $\Box\forall y\exists x(xCy)$ : 'Necessarily, for all y, there is an x

Although the *de dicto/de re* distinction clarifies the formal status of the modal operator in the *WCP* and the *SCP*, it does not bring out the specifics of the two principles and by no means constitutes a full analysis. One must also ask what kind of entities  $x$  and  $y$  are – events, objects, or perhaps substances. One might suggest that they are events so that one event causes another – especially since ‘event’ appears in the standard formulation of the *WCP* – but I believe Watkins is correct in criticising event-based models of causality for being simplistic (Watkins 2005, 232–42). For Kant, a deeper structure of causal forces of substances underlies events: things (substances) have powers that bring about change (an event) by exerting force on other things. An event occurs when a thing changes its state from  $A$  at  $t_1$  to  $B$  at  $t_2$ , and so the structure of an event already contains a causal influence that brings about the change in it. For simplicity’s sake we can, however, ignore these specifics for now and continue using the event-formulation of the *WCP*.

A further question is whether  $x$  and  $y$  are *types* or *tokens*. For reasons given later, they must be tokens for the *WCP* and types for the *SCP* (see section 3). With types the *WCP* would be too strong and with tokens the *SCP* would be too weak. Thus the *SCP* reads: *same types of causes produce same types of effects* – or *similar causes produce similar effects*.<sup>9</sup>

There is a common confusion about the *SCP* that complicates matters. For example, according to Allison:

[W]e can know *a priori* only that an appearance must stand in a necessary relation to some other appearance, but not that we will be able (even in principle) to determine what that other appearance is and the law connecting them. (Allison 2004, 259.)

Although this is correct, the problem is that Allison takes the latter to amount to the *SCP*, whereas in fact it is a much *stronger* principle. Let me dub the principle that we can *know particular causal laws a priori* the *extreme causal principle* (*XCP*). The *XCP* concerns the *epistemological* question of whether and how we can determine the laws of nature (*a priori* or only empirically *a posteriori*), whereas the *SCP* is the *ontological* tenet that *there are* laws of nature,

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such that  $x$  causes  $y$ .’ In the *de re* reading the necessity-operator is after the quantifiers:  $\forall y \exists x (\Box(xCy))$ : ‘For all  $y$ , there is an  $x$  such that  $x$  necessarily causes  $y$ .’

<sup>9</sup> Cf. Lovejoy 1906, 399–402; Allison 2004, 258; and Watkins 2005, 215.

i.e. that the same cause (whatever it may be) always (*ceteris paribus*) brings about the same effect (whatever it may be). As Kant points out, knowing *that* causal relations are invariable laws is different from being able to determine *what* these laws are: ‘Everything in nature [...] takes place *according to rules*, although we are not always acquainted with these rules.’ (AA 9, 11.)

Thus Allison conflates the *SCP* and the *XCP*, and since in his view Kant does not subscribe to the *XCP* (Allison’s *SCP*), he erroneously infers that Kant must settle with the *WCP*.<sup>10</sup> When presenting his opponent’s view, Friedman makes the same conflation:

The Transcendental Analytic does not, however, establish that particular laws are themselves necessary. Indeed, as far as particular causal laws are concerned, the Transcendental Analytic is in basic agreement with Hume: They are established by induction and induction alone. (Friedman 1992, 164.)

The view that ‘particular causal laws are [...] necessary’ is different from the view that they are ‘established by induction’. The latter, epistemological point is no ground for denying the former, ontological one. And it is the former that the *SCP* states, not the latter. Friedman does not make this conflation only in characterising his opponent’s view: his reason for seeking proof of the *SCP* in the *Foundations* is that he believes a particular empirical law *is* (ontologically) necessary only if it has been *derived* (epistemically) using the *a priori* ‘principles of the understanding’ (*ibid.*, 172), which is what Kant does e.g. for the Newtonian law of gravitation in the *Foundations*.<sup>11</sup> But since determination of particular laws (*XCP*) is not required for the claim that the laws (whatever they may be) are necessary (*SCP*), Kant can well justify the latter in the *Critique* and leave the former to the *Foundations*. Watkins perceives this common error:

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<sup>10</sup> Allison does distinguish between two strong readings of the Second Analogy: Guyer’s ‘epistemological’ and a ‘more orthodox version’ (Allison 2004, 256–7). The former is the *XCP*, whereas the latter is the *SCP*: ‘every event falls under *some* empirical causal law, the precise nature of which must be learned from experience’ (*ibid.*, 257–8). Yet Allison goes on to conflate the ‘more orthodox version’ with the *XCP* when he argues against it that ‘it does not determine what the cause is or guarantee that we shall be able to discover it or the relevant causal law’ (*ibid.*, 258). This argument only works against the *XCP* and does not touch the *SCP*: the latter makes the (ontological) *a priori* claim that there *are* necessary causal laws, not the (epistemological) claim that we could *discover* them *a priori*.

<sup>11</sup> Friedman 1992, 173–5, 180, 185–6, 190–1.

Accordingly, [Kant's] framework entails only that whatever grounds and causal laws have held in the past will not change in the future [the *SCP*]. Thus, even if Kant were to establish the metaphysical necessity of causal laws for the determination of the changes that occur in the world, the epistemological question of ascertaining what grounds exist in the world has not been addressed at all. (Watkins 2005, 290.)

Watkins is refreshingly candid about the trouble he faces in trying to attribute the *SCP* to the Analogies, however. Not only does he grant that 'it is tempting to rest content with the weaker reading' (*ibid.*, 286), he also admits – after nonetheless defending the stronger reading (*ibid.*, 288) – that '[e]ven if this interpretation does accurately represent Kant's intentions, it is unclear that Kant's arguments can carry the weight of the strong reading of the Second Analogy at a metaphysical level' (*ibid.*, 290n). Watkins has to rely on two additional principles taken from Kant's pre-critical works and on it seeming 'more attractive to assert that a different ground is active in bringing about different effects' (*ibid.*, 288) – rather than that the very causality of the ground has changed, as could be the case with the *WCP*. Since Kant explicitly defends the *SCP* in the Postulates, such speculative measures are, however, unnecessary.

### **3. The Second Analogy and the Weak Causal Principle**

It is fairly uncontroversial that Kant's *explicit* arguments in the Second Analogy support only the weak causal principle – even Watkins agrees on this.<sup>12</sup> Whether Kant nevertheless *sought* to prove the *SCP* there is another matter, however. Indeed, Lovejoy's famous charge – echoed by Strawson (1966, 137) – that the Second Analogy constitutes 'one of the most spectacular examples of the *non-sequitur* which are to be found in the history of philosophy' (Lovejoy 1906, 402) is motivated by his (false) belief that Kant sought to prove the 'law of universal and uniform causation' (the *SCP*) but only succeeds in proving the '*irreversibility* of the sequence of my perceptions in a *single* instance' (*ibid.*, 399) (the *WCP*).<sup>13</sup> Lovejoy's charge can be rebutted

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<sup>12</sup> See Watkins 2005, 204; Lovejoy 1906, 399; and Friedman 1992, 161–70.

<sup>13</sup> Lovejoy is correct when he states: 'But all this has no relation to the law of universal and uniform causation, for the manifest reason that a proof of the *irreversibility* of the sequence of my perceptions in a *single* instance of a phenomenon, is not equivalent to a proof of the necessary *uniformity* of the sequence of my perceptions in *repeated instances* of a given *kind* of phenomenon.' (Lovejoy 1906, 399.)

by showing that the explicit principle of the second analogy is the *WCP* and that Kant's argument in the second analogy is not intended to justify the *SCP*. My following reading of the argument in the Second Analogy mostly draws on Watkins (2005), as I believe he has presented it correctly.

*3. 1. The Principle of the Second Analogy*

Kant formulates the principle of the second analogy in two ways, which I take to be equivalent (Allison 2004, 247). In the A-edition it is: (SAA) 'Everything that happens (begins to be) presupposes a something which it follows in accordance with a rule.' (A189.) The B-edition version reads: (SAB) 'All alterations occur in accordance with the law of the connection of cause and effect.' (B232.) Especially the *SAA* suggests the *WCP*: every event (alteration) presupposes some cause – 'a something' – that brings it about. Kant's claim that the second analogy demonstrates the *principle of sufficient reason* for all appearances also speaks for the weaker reading (A200f/B246, A217/B264f). According to this principle, everything (here: every event) must have a reason or cause that is *sufficient* for bringing it about – it does not, as such, decide whether this particular reason has a *necessary* (rather than merely contingent) connection to the event.<sup>14</sup>

The words 'rule' and 'law' in Kant's formulations could seem to indicate the stronger reading, however: that everything does not merely have a ground but a rule-like ground. Yet, as has been noted especially by Watkins, this would be hasty, for according to Kant rules are 'either *necessary* or *contingent*' (AA 9, 12), and laws are by definition *necessary* rules.<sup>15</sup> If, as seems plausible, the A- and B-edition formulate the same theses, then the 'law of the connection of cause and effect' in the *SAB* is the same as the *whole* A-edition formulation *SAA*, i.e., that it is a law (SAB) that (SAA) '[e]verything that happens (begins to be) presupposes a something

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But he is wrong when he continues: 'Yet it is the latter alone that Hume denied and that Kant desires to establish [in the Second Analogy].' (*Ibid.*)

<sup>14</sup> For Kant, the principle of sufficient reason has both a logical and a real use. In the *Jäsche Logik* (1800) Kant explicitly connects the principle of sufficient reason to logical *actuality*, not to *necessity* (AA 9, 53; cf. AA 28, 721). Since Kant is careful to maintain a correspondence between the logical and real use of principles, he likely did not mean the real principle of sufficient reason to involve necessity either.

<sup>15</sup> See e.g. A126, A216/B263; *KU*, 184; and Watkins 2005, 203, 215f.

which it follows in accordance with a rule.’ Accordingly, the ‘law of the connection of cause and effect’ should be read as *de dicto*: it is necessary (a law) that every event (everything that happens) presupposes *some* cause (a something which it follows in accordance with a rule).

Indeed, Kant consistently refers to the causal principle of the Second Analogy as a *law*.<sup>16</sup> That is, the principle of causality – that there *is* causality grounding all alteration – is necessary.<sup>17</sup> In contrast, in the Analogies Kant consistently characterizes the *causal connection itself* as a *rule*. In the objective (causal) connection ‘the apprehension of one thing (that which happens) follows that of the other (which precedes) *in accordance with a rule*’ (A193/B238). That is, unlike the principle that there be causality to begin with, the causal connection itself is not yet established as a necessary rule (law) but as a rule that might turn out to be contingent. Since Kant calls the causal connection a ‘rule’ no less than 21 times<sup>18</sup> in the Second Analogy, and does not once call it a ‘law,’ it is not likely that the choice of term is accidental.

Thus that Kant uses the words ‘rule’ and ‘law’ does not yet imply the *SCP*. One needs to carefully analyse *what* Kant takes to be the rules and laws. As I will show in section 4.1, Kant’s terminology is consistent also in the Postulates: he distinguishes between rules and laws

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<sup>16</sup> Cf. B234, A199/B244, A 202/B 248, and A207/B252.

<sup>17</sup> There is one digressing passage, yet it is the exception that proves the rule. For when Kant rejects ‘everything that has always been said about’ how the causal principle is grounded (namely on induction), he says that according to this common view ‘we are led to discover a rule, in accordance with which certain occurrences always follow certain appearances, and are thereby first prompted to form the concept of cause’ (A195/B240f.). Here the causal principle is characterized as a rule rather than a law. Yet in the very next sentence Kant rejects this common view by pointing out that ‘the rule that [the concept of cause] supplies, that everything that happens has a cause [the *WCP*], would be just as contingent as the experience itself: its universality and necessity would then be merely feigned [...]’ (A196/B241). That is, the sole characterisation of the causal principle as a *mere* rule is connected to its rejection as *contingent*, i.e., to the incapacity of experience to establish it is a *necessary* rule – as a *law*. Thus the passage supports rather than undermines my view that Kant deliberately and consistently distinguishes *rules* from *laws*. It also shows that his concern in the Second Analogy is whether the principle ‘everything that happens has a cause’ is (*de dicto*) contingent or necessary, not whether we should ascribe (*de re*) necessity to the causal relations themselves.

<sup>18</sup> A188, A193/B238 (4x), A194/B239 (2x), A195/B240 (3x), A196/B241, A196/B242, A197/B242, A198/B243 (2x), A199/B244, A200/B245 (3x), A201/B247, A202/B247.

deliberately so that the Analogies would ground the *WCP* while the Postulates would ground the *SCP*.<sup>19</sup> It is furthermore right after the three analogies that Kant first makes the distinction between rules and laws explicit and defines the latter as necessary rules: ‘By nature (in the empirical sense) we understand the combination of appearances as regards their existence, in accordance with necessary rules, i.e., in accordance with laws.’ (A216/B263.) It seems plausible, then, that after having grounded the *WCP* in the Analogies, Kant clarifies the status of this principle before continuing to the Postulates and to the remaining task of justifying that the causal rules are necessary and not merely contingent.

### 3. 2. *The Argument in the Second Analogy*

In a nutshell, in the Second Analogy Kant argues that the temporally determined subjective order of our representations necessarily presupposes an objective (and hence causal) order of events (see Watkins 2005, 203 ff.). Kant notes that if I perceive a house, I can perceive first the rooftop and then the ground just as well as *vice versa*. In contrast, if I perceive a ship driven downstream, I would *have to* perceive it first upstream and then downstream, and this order could not be reversed. (A192/B237f.) The difference is that, unlike the house, the ship’s motion constitutes an *event* or a *happening* (*Geschehen*; cf. Allison 2004, 255f). In the Second Analogy Kant seeks to explain this *irreversibility* of the order of perception in events and its *reversibility* in non-event occurrences (*Begebenheiten*).

Kant observes first that the *subjective* order of representations is reversible. (A192/B237f, A201/B246.) In my thinking and imagination (including memory), I can represent my last day at school and then the first just as well as *vice versa*. Drawing on complex reasoning that I will not explicate here,<sup>20</sup> Kant concludes that therefore no subjective ground can account for the *irreversibility* of the sequence of perception in *events*. Hence the ground must be objective and causal. (In accordance with the Transcendental Deduction, this causality is imposed on rather than derived from the world.)

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<sup>19</sup> Kant seems to use ‘rules’ and ‘laws’ similarly throughout his philosophy (e.g. A91/B124, A113, A126; *Pro*, 312; *KpV*, 20f, 31, 67; *KU*, 182–4; AA 9, 12; R 5414, AA 18, 176). Here, however, it suffices to show his consistency in the Analogies and Postulates specifically. Although Kant often speaks of rules when he could speak of laws – which is fine since laws are (necessary) rules – he does not speak of laws when he should speak only of rules.

<sup>20</sup> See A192–5/B237–40, A197–200/B242–5, A201f/B246f.

It is important to understand this irreversibility correctly: Kant does not claim that the *de facto* order of perception could be inverted. If I first happen to look at the rooftop and then at the ground, I cannot as it were go back in time to reverse this order. Kant's point about the difference between reversibility and irreversibility would be moot since I cannot change the perceptual sequence in *any* case. Rather, the reversibility is *counterfactual*: whereas I *could have* perceived the rooftop and the ground in the opposite order, I *could not have* first seen the ship downstream and then upstream – insofar as it really does move downstream:

I see a ship driven downstream. My perception of its position downstream follows the perception of its position upstream, and it is impossible that in the apprehension of this appearance the ship should first be perceived downstream and afterwards upstream. [...] In the previous example of a house my perception could have begun at its rooftop and ended at the ground, but could also have begun below and ended above [...]. (A192/B237f.)

Kant's argument – which will not be pursued here – goes on to show that the irreversibility of perceptual order in events requires an objective ground that determines the *de facto* order of things. It is because there is an objective sequence that I cannot help but perceive events in one determinate order rather than the other. It is in terms of this counterfactual impossibility of reversed order of perception of events that the necessity in the Second Analogy is to be understood.

Kant calls this the 'law of causality' or the 'law of the connection of cause and effect' (see note 16). It states that necessarily, in every event there is something that is preceded and determined (according to a rule) by something else, i.e. that every event involves a cause. Otherwise there could not *even subjectively* be any temporally determinate order of perception, and since in the perception of events there is such order, the law of causality is necessary. But this irreversible temporal sequence hereby only requires that all changes of state (events) are determined by *some* cause or other, i.e. that there are *some* causal relations (the *WCP*), not that they remain *constant through time* (the *SCP*).

None of Kant's numerous references to necessity in the argument have to be interpreted in the stronger terms of the *SCP*. Kant's point is simply that *if* the ship *really is* driven downstream, which according to his argument shows that there are objective causal grounds for it to do so, then if it is to be perceived at all, it must be perceived first upstream and then downstream. Since his argument thus repeatedly and explicitly requires just the necessity of

perceiving one thing before the other, it offers no grounds for a *de re* interpretation of such statements as: ‘objective significance is conferred to our representations only insofar as a certain order in their temporal relation is necessary’ (A197/B243). Kant does not need to say anything about the constancy of the causal connection pertaining between appearances. Thus his arguments justify only the *WCP*, and his conclusion neither requires nor invokes the *SCP*.

### *3. 3. Some Problematic Passages*

One could object that I have ignored passages that seem to endorse the *SCP* in the Analogies. Indeed, quite contrary to my view, Watkins notes:

[T]here is a textual motivation for the stronger reading that does not sit well with the weaker reading. For in the Second Analogy Kant repeatedly uses terms such as ‘universality,’ ‘always,’ and ‘invariably,’ [*sic*]<sup>21</sup> all of which strongly suggest that Kant has in mind causal laws that would hold over time. Moreover, Kant seems to slide back and forth between the weak and strong meanings of the principle without explicitly acknowledging the considerable philosophical difference between them. (Watkins 2005, 287.)

Although I do not think Kant slides back and forth between the *WCP* and the *SCP*, at times his words do seem to suggest the stronger reading. Yet the mere occurrence of e.g. ‘always’ is no more problematic than that of ‘necessary’. As we saw, the context and precise formulation of these terms is what matters. That said, I have found the following three passages the most problematic for my reading.

- (P1) [...] if the state that precedes is posited, then this determinate occurrence inevitably and necessarily follows. (A198/B243f.)
- (P2) [...] there is therein an order of the successive synthesis that determines an object, in accordance with which something would necessarily have to precede and, if this is posited, the other would necessarily have to follow. (A201/B246.)
- (P3) [...] if I were to posit that which precedes and the occurrence did not follow it necessarily, then I would have to hold it to be only a subjective play of my imaginings [...]. (A201/B247.)

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<sup>21</sup> Kant does not use the word ‘invariably’ in the Analogies. Most likely Watkins means the essentially different ‘inevitably’ (*unausbleiblich*) (cf. *P1* below). Kemp Smith’s unfortunate translation of *unausbleiblich* as ‘invariably’ might have contributed to this error.

The distinction – common in secondary literature<sup>22</sup> – between *types* and *tokens* is crucial for dispelling the worry that these passages would support the stronger reading. Recall the context: I perceive an event in a determinate temporal order, i.e., the state or occurrence  $a_1$  appears before  $a_2$  and not *vice versa*. According to the Second Analogy this order is grounded in an objective causal connection so that some cause  $c$  grounds the alteration of  $a_1$  into  $a_2$  (constituting an event) and hence  $a_1$  must occur before  $a_2$ .<sup>23</sup> Here the causal determination occurs between *token* states, not types – it is not as if the type ‘ship is upstream’ must precede the type ‘ship is downstream’ so that ships could never sail upstream! Rather, *in this particular example* the order of representation is what it is because the token ship *is* moving downstream.

In this context it makes sense to say in *P1* that if  $a_1$  (token occurrence) ‘is posited, then [ $a_2$ ] inevitably and necessarily follows’. This is why Kant specifically speaks of ‘this determinate occurrence’ – of a token, not a type. Similarly for *P2*: In the sequence of perception  $P(a_1, t_1) > P(a_2, t_2)$ , ‘something would necessarily have to precede’, i.e., there *must be* some token occurrence  $a_1$  that precedes. If this token  $a_1$  is posited, then the token effect  $a_2$  must also be posited. As to *P3*, if there really were a ship upstream (‘if I were to posit that which precedes’) and the ship would not occur downstream later (‘if [...] the occurrence did not follow’), the token ship could not have been moving downstream after all, since if it were, it *would have had to* occur downstream later.

If in the passages *P1–P3* Kant is speaking of tokens, then they do not contest my claim that he seeks to prove only the *WCP* in the Second Analogy. This also serves to deflect Lovejoy’s charge that Kant sought to *derive* the causal uniformity about type-events from the irreversibility of token-events (Lovejoy 1906, 399–402). The *SCP* holds that the causal rule is an unchanging law so that whenever the same *type* of condition occurs, the same type of consequence must follow. The *WCP* dictates just that in case an event (alteration from  $a_1$  to  $a_2$ ) occurs, it is connected to its cause by some token rule  $c$ . As Lovejoy points out, it is quite

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<sup>22</sup> E.g. Lovejoy 1906, 399; Friedman 1992, 163f, 170; Allison 2004, 258; Watkins 2005, 215.

<sup>23</sup> Since the occurrence  $a_1$  changes *because* of the cause  $c$ , it must precede  $c$ . Similarly, since  $a_2$  is caused by  $c$ ,  $c$  must precede  $a_2$ . Thus we get the following sequence:  $a_1 > c > a_2$ . Note that Kant argues that  $a_1$  must precede  $a_2$  even when the two are simultaneous: ‘it is the *order* of time and not its *lapse* that is taken account of; the relation remains even if no time has elapsed’ (A203/B248).

possible for the rule to change across time so that when the next token cause of the same type occurs, the token effect would be of a different type.

#### **4. The Postulate of Necessity**

The postulate of necessity contains Kant's explication of the real and empirical use of the concept of necessity (in contrast to its logical use). As per my thesis, this use is to ground the *SCP* on top of the *WCP* already established in the Analogies. There are essentially three species of textual evidence that show that Kant himself intended the postulate of necessity to establish the *SCP*: how he presents the role or function of the postulate (4.1); the fact that the postulate is supposed to make *prediction* possible, which requires more than the mere *WCP* (4.2); and his explicit formulations of the principles he took the Analogies and the Postulates to establish (4.3).

##### *4. 1. Adding Necessity to Causality*

According to Kant, the postulate of necessity, as a modal principle, 'adds to the causal determination still [*noch*]<sup>24</sup> the concept of necessity' (A228/B281, translation altered). If one takes the Analogies to already establish the necessity of causal determination (*SCP*), Kant must come across as confused – and indeed Kemp Smith accordingly calls Kant's postulates 'perverse' (Kemp Smith 1962, 400). However, by asking, as we have done and Kemp Smith not, *what kind* of necessity the Analogies establish and what kind of necessity the third postulate adds to causal determination, one will find that the postulate is not just a symptom of Kant's architectonical perversion. By adding another sense of necessity (*de re*) the postulate strengthens the weak causal principle and so, I submit, for the first time grounds the strong causal principle.

Kant rejects *absolute* or *unconditional* real necessity and endorses only *hypothetical* or *conditional* necessity (see 4.3). According to him 'there is no existence that could be cognized as necessary under the condition of other given appearances except the existence of effects from given causes in accordance with the laws of causality' (A227/B279). Although it might seem that he

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<sup>24</sup> The German word *noch* can often be left untranslated – as Guyer & Wood do here. Yet as the postulate is accused of being superfluous, Kant's claim that it adds *still* something is relevant.

is just recapping the Analogies, there is an easily overlooked but significant difference: the plural ‘laws of causality’. In the Second Analogy Kant does not *once* mention *laws of causality* but employs solely the singular *the law* of causality (the *WCP*, cf. 3.1). That the plural is no slip of the tongue is clear from the next sentence that repeats it: we can cognize the necessity of the states of substances ‘in accordance with empirical laws of causality’ (A227/B280). What is more, the word ‘empirical’ is added – the expression ‘empirical laws of causality’ does not appear in the three analogies.

Kant does, however, mention *transcendental* in contrast to empirical laws in the remark to the Analogies (A216/B263). The transcendental laws are the transcendental principles of the understanding, including the analogies and postulates, through which the categories are applied to objects of experience (Friedman 1992, 166–75; Allison 2004, 258; Watkins 2005, 203f). The *law of causality* of the Second Analogy is one of these ‘transcendental laws of nature’ (A216/B263) that are required for there to *be* nature and hence particular empirical laws to begin with (*ibid.*, A228/B280; cf. Friedman 1992, 164–8).

After having distinguished transcendental from empirical laws in order to clarify that the analogies are of the transcendental kind, Kant reverts back to *rules* when characterising the causal relation in both the second and third analogy (A217/B264). Thus neither Kant’s reference to ‘certain laws [...], which first make nature possible’ (A216/B263), nor to ‘transcendental laws of nature’ (*ibid.*) contest my observation that Kant switches from causal *rules* to causal *laws* consistently and explicitly between the Analogies and the Postulates.<sup>25</sup> Quite the contrary, the distinction between transcendental and empirical laws that occurs in the remark between the Analogies and the Postulates seems to rather clarify the roles of these passages and to emphasize the otherwise subtle move from the (transcendental) *law* to (empirical) *laws* of causality.

That there are *causal laws* does not merely re-affirm the necessity *of* there being causal relations (‘law of causality’) but asserts necessity *in* these relations, i.e., that the particular causal relations are (empirical) *laws* of nature. It is not just that alteration requires some cause

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<sup>25</sup> Kant uses the plural ‘laws’ here only because he is talking about all three analogies, each of which exhibit a transcendental law. Thus the Second Analogy establishes a transcendental law, not laws. (A216f/B263f.)

(the *WCP*), but that there is necessity in this alteration, grounded on particular natural laws – such as the law of gravitation. This is, however, not to endorse the *XCP* – that we could *discover* or *determine* e.g. the law of gravity *a priori*. Rather, it is to affirm that insofar as gravitation *is* a law of nature – and knowing whether it is requires further investigation – it is necessary and brings about its effect invariably.

Kant writes about the postulate of necessity: ‘Everything that happens is hypothetically necessary; that is a principle that subjects alterations in the world to a law, i.e., to a rule of necessary existence, without which not even nature itself would obtain’ (A228/B280, translation altered). Since the postulate subjects alterations in the world to a *law* – again equated with a *necessary* rule – it reinforces the principle of the second analogy (the *WCP*) that subjects alterations to *rules* that could be contingent. It thus seems that Kant made the distinction knowingly: he intends the postulate of necessity to literally justify *adding necessity to causal determination* – to justify treating causal relations as necessary.<sup>26</sup>

One might still object to the distinction between rules and laws. Standardly a rule is considered unchangeable – rules themselves do not change even if it might change which rule is in effect. Thus e.g. the mathematical rule of doubling, expressed by the function ‘ $f: x \rightarrow 2x$ ’, itself cannot change. Trebling does not change the rule of doubling but rather substitutes it by another rule ‘ $g: x \rightarrow 3x$ ’. This I grant. Yet the necessity of laws of nature exactly excludes such substitution. A rule can be replaced by another or be suspended for a period of time but a law cannot – at least not in the sense of natural laws.<sup>27</sup> If ‘ $L: x \rightarrow f(x)$ ’ is a law of nature, then *whenever* its condition  $x$  occurs, the consequent  $f(x)$  does too.<sup>28</sup> This suffices to make the relevant distinction (reinforced in the next section): while the *WCP* just states that for any

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<sup>26</sup> In terms of the *de re/de dicto* distinction, the *WCP* states the *de dicto* necessity of the law of causality:  $\Box \forall y \exists x (x C y)$ . It subscribes to the necessity of there being causal rules, of  $x$  and  $y$  being connected by causality that grounds the latter on the former. The *SCP* adds a necessity-operator to the causal determination itself ( $x C y$ ) and so reinforces it into a causal *law*:  $\forall y \exists x (\Box (x C y))$ . This is not *de dicto* necessity of causality but *de re* necessity *in* causality.

<sup>27</sup> Watkins, too, recognizes constancy across time as a characteristic of the necessity of laws (Watkins 2005, 287). In his schematism Kant also advocates a tight bond between necessity and existence at all times (A145/B184).

<sup>28</sup> Natural laws can counter each other. A book on the table does not fall because other forces negate gravity’s pull – *not* because gravity does not affect it.

phenomenon  $P$  there exists a ground  $G$  that brings it about in accordance with a causal rule  $C$ , the *SCP* requires a law  $L$  so that whenever the conditions exhibited by  $G$  occur,  $P$  also occurs – i.e., the connecting rule  $C$  cannot change across time. This Kant seeks to establish in the postulate of necessity by adding necessity to causality, i.e., by demanding that  $C$  is a *necessary* ( $\Box xCy = L$ ) rather than a contingent ( $xCy$ ) relation.<sup>29</sup>

#### 4. 2. *The Strong Causal Principle and the Possibility of Prediction*

According to Kant, the postulate of possibility fills an important role:

Necessity therefore concerns only the relations of appearances in accordance with the dynamical law of causality, and the possibility grounded upon it [*darauf*] of inferring *a priori* from some given existence (a cause) to another existence (the effect). (A227f/B280.)

There are two things of note here. First, as the necessity here concerns *relations* of appearances, its scope is *de re* the (causal) ‘relations of appearances’, i.e. the relation  $xCy$ , rather than the ‘dynamical law of causality’ that has already been established as necessary in the second analogy. Secondly, according to Kant the postulate of necessity grounds the possibility of *inferring* from a given existence to another as its effect.<sup>30</sup> This is crucial, as the *WCP* could not justify such an inference, since in the absence of laws nothing would determine *beforehand* which causal relations pertain between which events, even if we know that *some* do. For it to be even in principle possible to infer from causes to effects, *constant* laws

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<sup>29</sup> Whereas the *WCP* allows for type-identical grounds with type-different rules and hence type-different effects, the *SCP* dictates that type-identical grounds involve type-identical causal rules and hence bring about type-identical effects. More precisely the *WCP* states that if at any time  $t_a$  the token  $p_1$  of the type  $P_1$  occurs, then there exists a ground-token  $g_1$  of the type  $G_1$  and a rule-type (function)  $C_1$  at  $t_b$  so that  $t_b < t_a$  and  $g_1 C_1 p_1$  ( $p_1$  is caused by  $g_1$  via rule  $C_1$ ). The *SCP* further stipulates that if there exists a ground-token  $g_2$  of the type  $G_2$  and a rule-type  $C_2$  at  $t_c$  ( $t_b < t_a < t_c$ ), and if  $G_1 = G_2$ , then  $C_1 = C_2$  and thus there exists a token occurrence  $p_2$  of the type  $P_2$  at  $t_d$  so that  $P_1 = P_2$  and  $t_c < t_d$ .

<sup>30</sup> Kant does not and should not make any claims to the possibility of such inference in the Analogies. Paton observes the importance of this point (1976, 363) but does not develop it further.

of nature are required – otherwise it could only at best be determined *after the fact* that  $y$  was caused by  $x$  in a particular case.<sup>31</sup>

This is not an epistemological point: even if there are causal laws and consistency, there could be other factors inhibiting us from *knowing* the laws of nature and hence from *succeeding* in prediction – the *SCP* is a *necessary*, not *sufficient* condition of prediction. Indeed, as a testimony to the complexity of Kant’s philosophy of causality, the Transcendental Dialectic introduces yet another principle: the *regulative causal principle* (*RCP*). (A642/B670 ff.) According to the *RCP*, we can ground our scientific endeavour to determine the laws of nature only with the presupposition that nature is lawfully uniform.<sup>32</sup>

Although Kant’s discussion of the *RCP*, scientific investigation and method, as well as induction and hypotheses, is interesting, here it suffices to bracket the *RCP* out by distinguishing it (as a regulative epistemological principle) from the *SCP* (as a constitutive ontological principle) and to point out that while the *SCP* is a necessary condition of inferring from one event to another and so of predicting them, it is not sufficient for us being

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<sup>31</sup> Arguably, even this would be impossible. As Kant agrees with Hume that causality cannot be directly perceived (B233, B257, A216/B262), in a world governed merely by the *WCP* we could not know what the cause was *even after* the fact. Since anything could cause anything, there is no telling what might have caused what, as there are neither laws on which to ground such a claim nor direct perception of causal relations – we cannot simply ‘see’ that  $y$  was caused by  $x$ . In case there are laws, however, then every  $x$  of the type  $X$  would *ceteris paribus* cause a  $y$  of the type  $Y$ , so  $y$  could be inferred from  $x$ , and the occurrence of a  $y$  of the type  $Y$  could be taken to indicate the existence of an  $x$  of the type  $X$ . This indication is not certain, however, as even with the *SCP*  $y$  could be caused by something else than  $x$  as well – the principle is *same-cause same-effect*, not *same-effect same-cause*. Thus the standard procedure of natural science of determining and ruling out other possible causes is needed to isolate  $x$  as the actual cause of  $y$ .

<sup>32</sup> This is Hume’s Principle of Uniformity of Nature (Hume 1739–40, 1.3.6, 89). The transcendental principles are constitutive (of experience), for they make *experience of nature* as well as *nature itself* possible (A180/B222f, A644/B672, A664/B692). Regulative principles only serve to direct our thinking – they make *thinking* of nature possible – and so according to the *RCP* rational faith in, not knowledge of, this uniformity subjectively justifies our use of the inductive method to *discover* particular laws of nature. We are for the sake of motivating scientific investigation allowed to *believe* in its validity. Our faith in the manageable complexity of nature is betrayed by our continued attempt to model even such chaotic phenomena as weather. (See Kannisto 2012.)

epistemically capable of doing so.<sup>33</sup> What is important is that Kant takes the postulate of necessity to ground the possibility of such prediction – making no such claim of the Analogies – and thus it seems plausible that he was aware of and advocated the stronger nature of the former.<sup>34</sup>

4. 3. *In mundo non datur nec casus nec fatum*<sup>35</sup>

Kant's explication of the respective principles of the Analogies and the Postulates (if not itself exactly a hallmark of clarity) provides further evidence that Kant sought to justify the *SCP* in the Postulates:

Hence the proposition 'Nothing happens through a blind accident' (*in mundo non datur casus*) is an *a priori* law of nature; likewise the proposition 'No necessity in nature is blind, but is rather conditioned, consequently comprehensible [*verständliche*] necessity' (*non datur fatum*). [...] The first [proposition] is properly a consequence of the principle of causality (under the analogies of experience). The second belongs to the principles of modality, which adds to the causal determination still the concept of necessity, which, however, stands under a rule of understanding. (A228/B280f, translation altered.)

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<sup>33</sup> The *RCP* concerns neither the existence nor the necessity but the *number* of natural laws and the level of fine-tuning in their conditions – which it takes to be manageable (cf. *KU*, 183; AA 20, 208f). If there were such a variety of natural laws with such fine-grained conditions that even the slightest change in e.g. how I hold a pen when I let it go would have drastic influence on how it falls – sideways, up fast, down slowly, etc. – then we might not be epistemically fit to determine the laws of nature. With reference to note 29, if the number of type-grounds  $G_1, \dots, G_n$  is immense and their rules  $C_1, \dots, C_m$  vary drastically, we might be *epistemically* unable to determine the rules  $C_1, \dots, C_m$  due to the relative complexity and chaotic appearance of the world – even if we knew that *ontologically* speaking everything in nature is causally uniform.

<sup>34</sup> Note that Kant uses emphasis only two times in the whole postulate of necessity, and he does so when claiming that 'we cognize only the necessity of *effects* in nature, the causes of which are given to us' (A 227/B 280). It is the next sentence that makes the already cited conclusion that necessity concerns 'the possibility [...] of inferring *a priori* from some given existence (a cause) to another existence (the effect)' (A 228/B 280). Thus it seems that Kant thought of the possibility of inferring effects from given causes to be a major import of the postulate of necessity.

<sup>35</sup> 'In the world there is neither chance nor fate.' (R 5978, AA 18, 413.)

The Latin principles *in mundo non datur casus* (in the world there is no chance) and *non datur fatum* (there is no fate) are grounded in the Analogies and Postulates that present the principles for the categories of relation and modality, respectively. According to Kant, the modal principle *non datur fatum* adds something to the causal principle *non datur casus* – the concept of *necessity*, no less.

The two Latin principles are seldom explicated in the literature.<sup>36</sup> While Kant's published works offer little help in decoding them,<sup>37</sup> his notes and lectures reveal that they refer to Baumgarten's *Metaphysica* (1739), which Kant used as his metaphysics textbook and in which the principles are presented as follows:

*Fate* is necessity of events in the world. *Fate* out of absolute necessity of the world would be *Spinozistic*, a non-entity, [...] [and] is to be posited neither in this nor in any world. (Baumgarten 1739, §382.)

An event in the world, the sufficient reason of which is not known, is a *chance*. A *chance*, which has no sufficient reason, would be *pure*, [and] impossible [...], [and] is to be posited neither in this nor in any world. (*ibid.*, §383.)

In these passages Baumgarten connects the principle *non datur fatum* to necessity and *non datur casus* to causality (through the principle of sufficient reason). This is mirrored by Kant's contention that the first principle 'belongs to the principles of modality' and the second is 'a consequence of the principle of causality' (A228/B281), i.e. the principle of sufficient reason. Yet in his notes Kant regularly connects *both* principles to *both* modality and causality. Consider e.g. the following samples from ca. 1778–1784:

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<sup>36</sup> Watkins (2001, 72–5) conducts an analysis of the Latin principles, yet he haphazardly connects them *both* to the Analogies *contra* Kant's explicit words that the *non datur fatum* belongs to the principles of modality (the Postulates).

<sup>37</sup> The two principles are not found in this form in Kant's other published works. In the preparation for the Transcendental Deduction (§13) Kant does mention *fate* (*Schicksal*) as an *a priori* concept the objective reality of which is to be rejected, as is indeed done later in the Postulates (A84/B117; cf. Paton 1976, 364n). For other occurrences of fate and chance, see A74/B99, *KpV*, 101; *KU*, 391–4; AA 6, 186, 298–9, 334, 489; AA 8, 426, 300n; AA 28, 663.

- (i) *Non datur casus*. No event happens by itself, but is rather always determined by natural things. [...] *Non datur fatum*. All necessity is natural necessity of events, i.e. always determined by other grounds in the same series. (R 5973, AA 18, 410.)
  
- (ii) *Non datur fatum*, i.e., [there is no] absolute necessity in the appearance and its arising [*entstehen*], though to be sure [there is absolute necessity] in the intellectual cause, which is no part of the sensible world, and also no substrate. (R 5970, AA 18, 409.)
  
- (iii) *Non datur casus*. Everything in the world happens according to the mechanism of nature, namely as a consequence of what itself [in turn] happens, as long as the world is a phenomenon [...]. (R 5975, AA 18, 411.)
  
- (iv) *Casus* is absolute contingency. *Fatum* [is] unconditioned necessity in the world. (R 5608, AA 18, 250.)

The passages (i) and (iii) relate *casus* to causal determination, whereas (iv) relates it to the modality of contingency. The quotes (i), (ii) and (iv) relate *fatum* to necessity, and (i) and (ii) also contain a reference to determination by grounds, which should be read as causal grounds, as indicated by (ii) with its ‘intellectual cause’ (see also: AA 28, 199; AA 28, 200). It is, then, a thoroughgoing feature of Kant’s thought that causality is tightly integrated with modality. Since the *non datur casus* and the *non datur fatum* both pertain to nature and reign in tandem, necessity and causality go hand in hand. This is why Watkins can find such good philosophical grounds for Kant to adhere to the *SCP*, and adhere to it he does. Yet, as causality and necessity are nonetheless embodied in two principles, one *could* hold without the other. Thus Kant is correct in giving them separate justifications in the Analogies and the Postulates, respectively, as I have laboured to show.

The principle *non datur casus* denies two things about the world<sup>38</sup>: that there could causally speaking be events without a sufficient reason, and that there could modally speaking be absolute contingency. These are really two sides of the same coin: Insofar as every event has a sufficient reason, i.e., some cause, then nothing can be absolutely contingent (without a ground). And conversely, insofar as something is not absolutely contingent, it must have a sufficient reason and thus be brought about by something.

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<sup>38</sup> The ‘*in mundo*’ restricts Kant to nature as an appearance. Cf. also (ii) above.

The principle *non datur fatum* also denies two things about the world: causally, that something could happen without being determined by something else, i.e., on its own through some intrinsic ground or *causa sui*, and, modally, that there could be absolute necessity, i.e., necessity that is not dependent on external influence. Again, these are intertwined: Insofar as every event is brought about by some extrinsic cause, i.e., is conditioned on something else, there can be no absolutely necessary events that arise out of their own spontaneity. And insofar as something does not happen unconditionally, it arises only on the condition that something else brings it about (causally).

When the two principles are combined, a clear picture emerges (Figure 1). By denying absolute contingency (2a), *non datur casus* leaves open three alternatives: (1a) conditional contingency, (1b) conditional (hypothetical) necessity, and (2b) absolute (unconditional) necessity. Since *non datur casus* leaves open the possibility (1a) that there is no necessity at all, it is indeed still lacking necessity that needs to be added to it. Enter *non datur fatum*: ‘No necessity in nature is blind, but is rather conditioned [...] necessity’ (A228/B280f). The first part is negative and excludes (2b); the second is positive and affirms (1b) while rejecting (1a).

*Figure 1: Conditional and unconditional contingency and necessity*

	1 – Conditional/hypothetical	2 – Unconditional/absolute
A – Contingency	Conditional contingency	Unconditional contingency ( <i>casus</i> )
B – Necessity	Conditional necessity	Unconditional necessity ( <i>fatum</i> )

The *non datur fatum* thus builds on the *non datur casus*, and together they leave open the sole alternative that events of the world are governed by conditional/hypothetical necessity, which is what according to Kant the postulate of necessity establishes. This is why *non datur fatum* ‘adds to the causal determination [of *non datur casus*] still the concept of necessity’ (A228/B281). Simply put, it adds to the principle that everything has a reason that the reason is (conditionally) necessary, rather than contingent – the latter option of which was still left open by the Analogies. From this point of view, the postulate that is generally thought as confused, exhibits remarkable – albeit compressed – rigour by listing every possible alternative and ruling out all except one.

Thus, as to modality, Kant's Latin principles deny *absolute necessity* and set *hypothetical* or *conditional* necessity in its stead: 'Everything that happens is hypothetically necessary' (A228/B280). And, as to causality, the principles affirm both the necessity of causal relations in *non datur casus* (*WCP*) and in causal relations in *non datur fatum* (*SCP*). That is, necessarily, a non-contingent, necessary connection pertains between an event and its cause: 'Necessity therefore concerns only the relations of appearances in accordance with the dynamical law of causality' (A227/B280). This and preceding considerations jointly show that Kant intended the Analogies to ground the weak causal principle and the Postulates to ground the strong causal principle.<sup>39</sup>

## 5. Conclusion

Existing interpretations have overlooked the importance of the Postulates and thereby either misplaced Kant's justification of the *SCP* or taken him not to offer a justification for it at all. Careful analysis of the conclusions, arguments, roles, and terminological finesse of both the Analogies and the Postulates shows that Kant was aware of the distinction between the weak and strong causal principles and intended to give them separate justifications in the second analogy and the postulate of necessity, respectively. Although it lies beyond the scope of this article to analyse the exact nature of Kant's justification of the *SCP*, recognising that he himself intended the postulate of necessity to accomplish this is the first necessary step in that direction. This furthermore shows that the postulate of necessity plays an essential role in Kant's system and that only by understanding it can we properly understand his theory of causality and of (metaphysical) necessity. In this the postulate of necessity is as important as the rest of the transcendental principles, and as an integral piece of Kant's critical metaphysics it merits far more attention and respect than it has hitherto been granted.

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<sup>39</sup> Together the two principles establish the apodicticity or necessary truth of the strong causal principle – the *de dicto* necessity of the *de re* necessity of causality:  $\Box \forall y \exists x (\Box x C y)$ .

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