What Is the Problem of Teleology in Kant’s *Critique of the Teleological Power of Judgment*?

Thomas Teufel
Department of Philosophy
Baruch College, The City University of New York, USA
thomas.teufel@baruch.cuny.edu

Abstract
In his teleological antinomy in the *Dialectic* of the *Critique of the Teleological Power of Judgment*, Kant presents two competing views of the explanatory power of causal mechanism for a science of origins. Kant expresses both the positive (thesis) view and the negative (antithesis) view in the guise of merely “regulative principles for the reflecting power of judgment”. The regulativity of these principles is usually taken to entail: *i.* Kant’s demotion of causal mechanism to an explanatory principle of heuristic, merely “subjectively necessary” status; *ii.* the possibility of “mechanically inexplicable” phenomena in nature. I argue that neither consequence ensues. Kant—in both thesis and antithesis of his teleological antinomy—is as firmly committed to the universal necessity of judging natural origins mechanistically as he ever was and would be. Accordingly, Kant is fully committed to the “mechanical explicable” of all causal processes (including organic processes) in nature. At issue in the antinomy is, instead, the universal sufficiency of judging natural origins mechanistically.

Keywords: antinomy, mechanism, reflecting power of judgment, technical-practical principle, teleology.

1. Introduction

1.1 Kant’s Teleological Antinomy: An Overview

In § 70 of the *Critique of the Power of Judgment*, near the start of the *Dialectic* of the *Critique of the Teleological Power of Judgment*, Kant presents the problem of *teleology* that he seeks to address in this second part of his final *Critique* in the form of an “antinomy of the reflecting power of judgment”. While there are many and varied interpretations of Kant’s resolution to this antinomical conflict—and, *a fortiori*, of his solution to the problem of teleology it expresses—there is surprising unanimity among commentators on just what that problem of teleology is supposed to be. This striking accord is due to near-universal agreement on two fundamental interpretive principles by which to assess Kant’s teleological antinomy—one of which, I seek to show, is seriously misguided.

---

1 All references to Kant’s works, with the exception of those to the *Critique of Pure Reason*, are to Kant (1900 –) and are preceded by standard abbreviations (*KU* for *Critique of the Power of Judgment*; *EE* for *First Introduction to the Critique of the Power of Judgment*; *MAN* for *Metaphysical Foundations of Natural Science*; *GMS* for *Groundwork of the Metaphysics of Morals*). Following standard practice, references to the *Critique of Pure Reason* will be to the pagination of the A and B editions. All translations from Kant’s works follow (with occasional slight modifications) Kant (1996), Kant (1998), Kant (2000) and Kant (2010).

2 See *KU*: 5.387.
First, commentators now virtually universally (and correctly) acknowledge that Kant’s considered view of the problem of teleology is presented in the first of his two formulations of the antinomical conflict in § 70. In this first version, Kant presents the antinomy as a conflict between merely regulative principles for judgment. Commentators, that is to say, agree that the problem of teleology is not captured in Kant’s subsequent subjunctive “transformation” of the antinomy. In this second version, Kant considers, by way of instructive contrast, what the conflict would be, were it to obtain between constitutive principles governing objects (see 4, below).

Second, commentators virtually universally (but incorrectly) agree that the conflict, qua clash of merely regulative (i.e., non-constitutive) principles, is a conflict between principles that “play only a heuristic role in our understanding” (Ginsborg 2008: 460) of nature. This is the view that the conflicting regulative principles exhibit the type of “subjective[] and logical[]” (Kant 1998: 593; A648/B676) necessity characteristic of the “regulative use of the ideas of pure reason” (ibid., 590; A642/B670) which Kant discusses in the Appendix to the Dialectic of the Critique of Pure Reason. According to this heuristic role—now, however, not of ideas of reason but of principles of judgment—the conflicting principles do not dictate how we must judge, they merely advise, “as method” (ibid., 593; A648/B676), how we must seek to judge.

Since Kant formulates his teleological antinomy specifically in terms of apparently conflicting principles of mechanistic judging (the thesis proposing mechanistic judging’s unlimited application to natural phenomena, the antithesis proposing a limit)—and since these are (by the first interpretive maxim) regulative, hence (by the second interpretive maxim) heuristic principles—it follows that the antinomy consists in a conflict between our “subjectively necessary”, methodological “commitments” (Watkins 2009: 203) to (both) mechanisms’ universal explanatory purchase on natural phenomena (thesis) and to its lack thereof (antithesis).

---

5 Cf. Kant (1998: 594; A649/B677). The additional question in the Appendix, whether such heuristic principles must also be accorded an objective interpretation does not arise in the teleological antinomy—principally because the maxims governing our use of the determining power of judgment do not, here, derive from ideas of reason.
On this interpretation, the problem of teleology Kant presents in the antinomy consists in the circumstance that intellects like ours must, simultaneously, seek to judge all causal processes in nature mechanistically and seek to judge some causal processes in nature non-mechanistically. Much of the intellectual sweat expended on Kant’s antinomy these days drips in the service of addressing the central difficulty the view raises: how can a genuinely antinomical conflict—namely, the “natural and unavoidable” (Kant 2000: 216; KU: 5.340)\(^6\) appearance of a (nevertheless) resolvable contradiction—obtain between these merely subjectively necessary principles? Even if we were simultaneously committed to both explanatory strategies, no unavoidable appearance of a contradiction would ensue: the principles not only prima facie appear to be—they really are—compatible.\(^7\)

In this paper, I will not add my own efforts in order to explain how two compatible principles can engender the unavoidable appearance of a contradiction. Instead, I contend that the stated way of framing the antinomy mischaracterizes the conflicting positions. Specifically, the second interpretive principle mentioned—i.e. that the antinomy consists in a conflict between merely “subjectively necessary”, heuristic principles—reflects a mistaken conception of the nature of regulative principles in general and of the maxim of mechanistic judging at the heart of the antinomy in particular.

In broadest terms, the principle of mechanistic judging—whose unlimited reign is advanced in the thesis and contested in the antithesis—is a principle of practical reason. More specifically, it is an instrumental (as opposed to prudential) hypothetical imperative. More specifically still, it is an instrumental hypothetical imperative governing cognitive conduct and economy, rather than kinetic action. By means of principles of this type, the power of judgment governs (hence, regulates) our thinking and judging, rather than our doing.\(^8\) Accordingly, such principles are practical principles in the employ of the

---

\(^6\) Allison (2004: 308ff.).
\(^7\) Indeed, they are complementary—qua subjectively necessary method, the teleological strategy must be pursued precisely when the mechanistic strategy turns up empty handed.
\(^8\) This, naturally, is not to suggest that our thinking cannot then have consequences for our doing. It is to suggest, however, that the reflecting power of judgment governs our doing indirectly: by means of governing the determining power of judgment.
(judgment-governing) reflecting power of judgment or “maxims of the reflecting power of judgment” (Kant 2000: 257; KU: 5.386).

The principle of mechanistic judging is one of three different kinds of such regulative principles, according to the three different ways Kant recognizes in which the reflecting power of judgment can govern judgment: i. by governing the exercise of the reflecting power of judgment—heautonomously (i.e. by means of a cognitive maxim derived from the reflecting power of judgment itself);\(^9\) ii. by governing the exercise of the determining power of judgment—heuristically (i.e. by means of cognitive maxims derived from ideas of reason);\(^{11,12}\) iii. by governing the exercise of the determining power of judgment—technically-practically (i.e. by means of cognitive maxims derived from pure concepts of the understanding).\(^{13}\)

As we will see, when the reflecting power of judgment employs a cognitive maxim derived from pure concepts of the understanding—as it does in the case of the principle of mechanistic judging at the heart of Kant’s teleological antinomy\(^{14}\)—its governance of the determining power of judgment by means of that cognitive maxim is fully technically-practically necessary. That is to say, its governance of the determining power of judgment is necessary, assuming that the end specified in the cognitive agent’s maxim is indeed the cognitive agent’s end, and that a base-condition of agent-rationality is satisfied.

---

9 The claim that the maxim of mechanistic judging is a principle of practical reason is thus not in conflict with the claim that it is a principle of the reflecting power of judgment. For, it is not a principle of pure practical reason, or a practical principle that is in turn a law of freedom. Instead, it is the consequence of applying a theoretical principle (one based on the metaphysical causal principle: “all explanation of natural origins must be mechanistic explanation because nature is mechanistic”) to the causality of a will (one that wants to explain natural origins; see Kant 2000: 5-7; EE: 20.197-201; see also 4.2, below).

10 The transcendental principle of purposiveness is Kant’s example of this type of self-governance by means of regulative principle.

11 The principia convenientiae of the Inaugural Dissertation and the Appendix to the Dialectic of the first Critique (which make an appearance, also, in the lead-up to the transcendental deduction of the principle of purposiveness in § V of the third Critique) are Kant’s examples of this type of governance by means of regulative principle.

12 This way of putting Kant’s account of the principia convenientiae is, admittedly, anachronistic, since Kant, of course, does not yet recognize a “reflecting power of judgment” in the Critique of Pure Reason, whence the role Kant later accords to that power in the governance of determining judgment is at best implicit in his discussion in the Appendix to the Dialectic.

13 The principle of mechanistic judging in Kant’s teleological antinomy is his principal example of this type of governance by means of regulative principle—and my focus here.

14 See Kant (2000: 258; KU: 5.386). See also 2.3 and 4.2, below.
If the principle of mechanistic judging—qua regulative principle for the reflecting power of judgment derived from the understanding—is thus, by its very nature, a technically-practically necessary cognitive maxim, then, since it is moreover endorsed by both sides of the antinomical conflict (see 2.3-4 & 4.1, below), it follows that what is in dispute in the antinomy (i.e. what is proposed in the thesis and denied in the antithesis) is *not* the universal necessity of judging natural origins mechanistically. That we *must* always judge natural origins (including organic ones) mechanistically—because nature *is* mechanistic—is never in doubt in Kant’s Teleology. Accordingly, the idea that the problem of teleology that Kant addresses in the antinomy has to do with an alleged “mechanical inexplicability” (Ginsborg 2004: 33, *passim*) of organic processes—perhaps the *idée fixe* of contemporary interpretations—is a red (and, I venture, rather un-Kantian) herring (see 4.1, below).

What *is* at issue in the antinomy is not whether mechanistic judging is always a possible avenue for explaining causal processes in nature (it very much is), nor whether (although universally possible) mechanistic judging is always a desirable—let alone necessary—route to such explanations (it very much is that too). The antinomy is concerned, *only*, with whether, although universally necessary for an explanation of causal processes, mechanistic judging is therefore the *only* (necessary) principle for judging causal processes. The *problem of teleology* expressed in the antinomy of Kant’s *Critique of the Teleological Power of Judgment* is, accordingly, that by the nature of our cognitive faculties mechanistic judging unavoidably appears to us as at once: *i.* universally necessary and *universally sufficient* for judging causal processes in nature (thesis), and *ii.* universally necessary but (nevertheless) *not universally sufficient* for

---

15 Any purported evidence to the contrary either comes from Kant’s discussion in the *Analytic*, which at best adumbrates a perplexity but neither offers—nor is intended to offer—Kant’s considered statement of the philosophical problem of teleology, or it comes from question-begging interpretations of some of Kant’s statements of the antithesis-position (interpretations that can “prove” Kant’s commitment to the merely heuristic status of mechanistic judging in those statements only by assuming it; see 2.4, below).  
18 That is to say, the principle of mechanistic judging applies with necessity in all cases of judging causal processes in nature *and* in no case can non-mechanistic principles of judging apply with similar necessity.
judging causal processes in nature (antithesis).\textsuperscript{19,20} This is the unavoidable appearance of a contradiction that Kant’s \textit{Dialectic} must seek to show to be resolvable in the framework of a \textit{Critique of the Power of Judgment}.

1.2 Plan of Discussion

I begin my account of Kant’s teleological antinomy with a discussion of the textual evidence in favor of the view that Kant is committed—in both thesis and antithesis of the antinomy—to the universal necessity of judging natural origins mechanistically.\textsuperscript{21} This discussion is not (yet) an analysis of the nature of that necessity (as the technical-practical necessity of an instrumental imperative of cognitive conduct). Still, the discussion is indispensable in preparing the ground for that analysis. It helps expose the opposing, dominant view—that Kant’s Teleology is premised on the merely heuristic status of the principle of mechanistic judging (accommodating Kant’s alleged belief in the “mechanical inexplicability” of organic processes)—as \textit{prima facie} implausible (see 2).

Yet, even if the available textual evidence suggests that the dominant view is problematic, it hardly proves it wrong. It is imperative to show that the arguments given in support of the merely subjective necessity of mechanistic judging (as well as those in support of the concomitant subjective necessity of teleological judging)—fail (see 3).

Entering the positive phase of my account, I argue that the proof of Kant’s (textually evident) conception of the “maxim of mechanistic judging”—as a fully universally necessary regulative principle for judging natural origins—comes from Kant’s rejection of the “constitutive transformation” of that regulative principle. Contrary

\textsuperscript{19} That is to say, the principle of mechanistic judging applies with necessity in all cases of judging causal processes in nature but non-mechanistic principles of judging can in some cases apply with necessity as well.

\textsuperscript{20} See Ginsborg (2001: 242). Ginsborg advances a similarly sounding, but actually quite different, claim. While she does take mechanism (broadly construed to include dynamical forces) to be insufficient for an explanation of causal processes, she takes it to be \textit{empirically} insufficient. By contrast, I claim that mechanism (more narrowly construed as the metaphysical causal principle; see 2.2, below) is both necessary \textit{and} sufficient for judging causal processes in nature. Mechanism’s insufficiency is, then, not an empirical insufficiency (see 5, below).

\textsuperscript{21} Evidently, the “universal necessity of judging natural origins mechanistically” is not the same as the “universal necessity of judging natural origins”. The former—which is the topic here—is a technical-practical command about how to carry out the contingent research project of judging natural origins (see 2.3 and 4.2, below). The latter would be an apodictic command that intellects like ours must adopt that contingent research project—which would be nonsense.
to the now standard interpretation, the constitutively transformed version of the regulative principle is not equivalent to the principle of mechanism. This clears the way to an appreciation that rejecting this version does not replace the (thus never abandoned) principle of mechanism with the maxim of mechanistic judging, and that the latter is, to the contrary, derivative of the former. Both the technical-practical nature of the regulative maxim’s necessity and the fact that what is at stake in the antinomy is the universal sufficiency of judging natural origins mechanistically then follow without (much) further ado (see 4).

My central concern in the present paper is to explain the nature of Kant’s philosophical problem in the Teleology. I do not propose to explain Kant’s solution to that problem. To some, this may seem rather unsatisfying. In response, it must be observed, first, that our comprehension of Kant’s Teleology has historically suffered from a notable rush among commentators to find Kant’s solution without truly pausing to determine what the problem is. As a result, even the serious study of Kant’s Teleology has, to this date, something of an “anything goes” feel (ready agreement on the wrong problem makes lack of agreement on a textually sound, principled solution all but inevitable). I take this state of affairs to be a prima facie compelling consideration in favor of a scholarly approach that finds virtue in limiting its focus to the contemplation of the nature of Kant’s philosophical problem. Second, putting potential scholarly virtue aside, there are significant methodological considerations that dictate the present focus. While Kant’s conception of the problem of teleology can be fully understood on the grounds of his exposition in the Dialectic of the Critique of the Teleological Power of Judgment, it is evident (from the analysis of that problem presented below) that Kant’s solution must draw centrally on philosophical resources that lie beyond that part of the text. What is more, those resources (in particular, the role of the transcendental principle of purposiveness in self-conscious human experience) are not only philosophically complex but also, as of yet, poorly understood. Accordingly, no investigation focused narrowly on the Critique of the Teleological Power of Judgment can explain Kant’s answer to the teleological question formulated there. Any satisfactory account of Kant’s

---

22 Watkins (2009: 219f.).
23 See Teufel (forthcoming).
answer must rely on a deep (and presently unavailable) understanding of Kant’s systematic concerns and resources in the *Critique of the Power of Judgment* at large. The fact that the present study does not offer instant philosophical gratification by revealing “Kant’s answer” at the end is thus not so much a methodological flaw as the inevitable consequence of its central methodological result: in matters teleological, no non-systematic, piecemeal answer is to be had in the third *Critique*. What can—and must—be offered at the end are *criteria of adequacy* for any solution to the problem of teleology that follow from Kant’s presentation of that problem in the *Dialectic* (see 5).

2. The Antinomical Conflict

2.1 Maxims of Mechanistic Judging

Kant’s ‘antinomy of the reflecting power of judgment’ in § 70 of the *Critique of the Teleological Power of Judgment* consists in the unavoidable appearance of a (nevertheless) resolvable contradiction between two regulative principles for the reflecting power of judgment. In the most general sense, the latter are principles by means of which the reflecting power of judgment governs (hence, regulates) cognitive conduct relative to some cognitive end or other. Accordingly, these principles are “maxims” (Kant 2000: 257; *KU*: 5.386) of judgment: subjective (i.e. not object-determining, but judgment-determining) principles of cognitive conduct.

The specific cognitive end, in pursuit of which the antinomical conflict arises, is determining judgment’s task of judging the *causal ancestry* of material things in nature. This is evident from both the thesis and the antithesis of Kant’s antinomy. In the thesis, Kant characterizes the task in question as that of judging the “*generation* of material things and their forms” (ibid., my emphasis). In the antithesis, Kant characterizes it as the task of judging objects as “*products* of material nature” (ibid., my emphasis), hence, of

---

24 I believe that a parallel case must be made for matters aesthetic as well, but I cannot argue for it here.
25 The cognitive *conduct* in question can either be the reflecting power of judgment’s own conduct or the conduct of the determining power of judgment. The cognitive *end* in question can either be a necessary or a contingent end, e.g. the transcendental principle of purposiveness is a regulative principle (hence, a *transcendental maxim*) which governs the reflecting power of judgment’s own conduct, relative to its necessary end of “ascending from the particular to the universal”.
26 As we will see, the subjective (i.e. judgment-determining) nature of these principles does not of itself entail that these principles are merely *subjectively necessary* (4.2, below).
explaining objects in light of the causal processes or ancestries that terminate in them.\textsuperscript{27}

The suggestion is, accordingly, that the antinomy of the reflecting power of judgment arises specifically regarding reflecting judgment’s governance of determining judgment’s pursuit of “natural history” (\textit{Naturgeschichte}).\textsuperscript{28,29}

Judgment, Kant explains, “can set out from two maxims in its reflection” (ibid.) on—hence, governance of—that pursuit. The first maxim proclaims that, when investigating causal origins, judging them mechanistically is always necessary:

\begin{quote}
The first maxim of the power of judgment is the \textit{thesis}: All generation of material things and their forms must be judged as possible in accordance with merely mechanistic laws (Kant 2000: 258; \textit{KU}: 5.387).\textsuperscript{30}
\end{quote}

The second maxim, by contrast, seeks to curb the explanatory sway of causal mechanism in a science of origins:

\begin{quote}
The first maxim of the power of judgment is the \textit{thesis}: All generation of material things and their forms must be judged as possible in accordance with merely mechanistic laws (Kant 2000: 258; \textit{KU}: 5.387).\textsuperscript{30}
\end{quote}

\begin{quote}
The second maxim, by contrast, seeks to curb the explanatory sway of causal mechanism in a science of origins:
\end{quote}

\textsuperscript{27} The notion that the cognitive end in question is, also, to explain causal processes internal to extant (adult) organisms, hence, their re-generation as much as their generation (see, e.g. Watkins 2009: 209), goes beyond the available textual evidence and stands under the influence of the idea that Kant, in the third \textit{Critique}, seeks to reduce causal mechanism to an \textit{intra}-substantial \textit{part-to-whole} causality (see 3.2, below).

\textsuperscript{28} I am not, here, concerned with the question whether Kant, in the third \textit{Critique}, gives precedence to \textit{Naturgeschichte} over \textit{Naturbeschreibung}. See Sloan (2006: 642-4). However, the fact that the antinomical conflict arises specifically in the context of \textit{Naturgeschichte} and not \textit{Naturbeschreibung} is \textit{prima facie} evidence in favor of the view that Kant gives precedence to the former and, hence, against Sloan’s claim to the contrary.

\textsuperscript{29} On the difference between this research project and one investigating causal determinations in the present, see Cleland (2002).

\textsuperscript{30} A note on the translation. Kant, in the third \textit{Critique}, almost always uses the noun “mechanism” (\textit{Mechanismus}) as the name for the corresponding form of causality; on only four occasions does he refer to it as “mechanics” (\textit{Mechanik}). Kant’s usage presumably reflects his belief that the empirical science of \textit{mechanics} stands in need of a metaphysical foundation which itself, in turn, draws on transcendental principles. Whatever the success of Kant’s attempt to provide that foundation, a critically warranted \textit{metaphysical} law of mechanism is a different type of principle than an \textit{empirical} law of mechanics. If this difference is the rationale for Kant’s distinction, in the third \textit{Critique}, between mechanism and mechanics (a distinction notably absent from the \textit{Foundations}, where Kant first seeks to justify the difference in question) Kant seems to abandon that rationale completely when it comes to adjectival usage. For, Kant—without exception—uses the adjective “mechanical” (\textit{mechanisch}) when he wants to characterize causal processes (e.g. \textit{mechanische Erzeugungsart}) and judgments (e.g. \textit{mechanische Erklärungsart}) as related to causal mechanism. Clearly, consistency would dictate that he use the actual adjectival form of the noun “mechanism”: “mechanistic” (\textit{mechanistisch}). For reasons of consistency, I will, for the remainder of this essay, take the liberty to make the adjective conform to the noun and translate Kant’s “\textit{mechanisch}” as “\textit{mechanistic}”. The only exception will be contexts in which I refer to present-day authors who discuss the “mechanical inexplicability” of causal processes.
The second maxim is the *antithesis*: Some products of material nature cannot be judged as possible according to merely mechanistic laws (judging them requires an entirely different law of causality, namely that of final causes) (ibid.).

Much confusion about Kant’s teleological antinomy can be avoided by noting, right at the outset that, while Kant speaks of (and presents) “two maxims” (ibid.) as the two propositions that constitute the teleological antinomy, these two maxims are conflicting interpretations of the same underlying maxim—which I call “the maxim of mechanistic judging”. The latter maxim is a regulative principle of the reflecting power of judgment which enjoins us to judge natural origins mechanistically. What is at stake in Kant’s antinomy is the nature and scope of this underlying regulative principle.\(^\text{31}\) Kant’s “first maxim” interprets the scope of the maxim of mechanistic judging to be (in a sense to be discussed) unlimited (“*All* [natural origins] *must* be judged [mechanistically]”). Kant’s “second maxim” interprets the scope of the maxim of mechanistic judging to be (in a sense to be discussed) limited (“*Some* [natural origins] *cannot* be judged [mechanistically]”). The limiting factor, in the second case, is the parenthetical “requirement” to judge some natural origins teleologically. Kant’s “second maxim” thus involves appeal to two maxims: the maxim of mechanistic judging as well as a maxim of teleological judging. And yet, the unavoidable appearance of a contradiction, which marks the conflict as antinomical, is entailed by the conjunction of the limited and unlimited interpretations of the maxim of mechanistic judging—*not* by the conjunction of the maxim of mechanistic judging and the maxim of teleological judging. Considering Kant’s “second maxim” a ‘teleological maxim’ (see 3.1, below)—or, for that matter, the antinomical conflict a “teleological antinomy”—is, accordingly, somewhat imprecise. In all strictness, Kant’s “teleological antinomy” is a *mechanistic* antinomy.\(^\text{32}\)

---

\(^{31}\) It is, accordingly, no surprise that Kant subsequently refers to “the maxim of a reflecting power of judgment” (Kant 2000: 259; *KU*: 5.387) in the singular. For an alternative interpretation of Kant’s use of the singular, see Watkins (2009: 202).

\(^{32}\) Note, in this regard, that there is no mention of teleological causality in the constitutively transformed version of the antithesis. Since, however, Kant’s “mechanistic antinomy” concerns the *sufficiency* of mechanistic judging (see 4.2, below), its proper focus in the end turns out to be the nature of teleological judging after all (see 5, below).
2.2 Mechanism and the Metaphysical Causal Principle

Before discussing the thesis and antithesis in greater detail, a word is in order on what is to be understood by the “principle of mechanism”. Kant’s ubiquitous appeal to causal mechanism in the third Critique (an idea largely absent from the Critique of Pure Reason) reflects his recognition—first expressed in the 1786 Metaphysical Foundations of Natural Science33 and reiterated in the Introduction to the Critique of the Power of Judgment34—that transcendental philosophy must distinguish between transcendental and metaphysical versions of its principles. Kant notes that transcendental principles determine their objects “only through ontological predicates (pure concepts of the understanding)” (Kant 2000: 68; KU: 5.181). Their metaphysical counterparts, by contrast, are reformulations of those principles that presuppose empirical concepts. Kant’s principal illustration of the distinction is the causal principle. He explains that the transcendental causal principle (that “every event has a cause”, i.e. the category of causality) presupposes only the ontological predicate of a “changeable substance[]” (ibid.). Because of its consequent high level of abstraction, the principle is compatible with a range of metaphysical interpretations of causal change (e.g. monist or hylozoistic) that are inconsistent with the specifically Newtonian conception of causality Kant had ultimately sought to justify in the Analogies of Experience in the Critique of Pure Reason. The transcendental justification of that conception, Kant recognized in the Foundations, would have to be the justification of a causal principle that made certain metaphysical presuppositions. Specifically, it would have to be the justification of a causal principle that employed “the empirical concept of a body (as a moveable thing in space)” (ibid.). Presupposing this concept, a causal principle consistent with the Newtonian conception of causal change follows “entirely a priori” (ibid.), namely, that change in such a body must have “an external cause” (ibid., my emphasis). Accordingly, the justification of the Newtonian conception of causal change amounts to the justification of the metaphysical causal principle that “every material event has an external cause”.35 That this metaphysical causal principle is, moreover, a principle of

---

33 See, e.g. Kant (2010: 252f.; MAN: 4.545f.).
34 See Kant (2000: 68; KU: 5.181).
causal mechanism—and, specifically, part of Kant’s attempted *a priori* rational foundation for Newtonian mechanics—is evident from Kant’s discussion in the *Metaphysical Foundations*, where the metaphysical causal principle expressly serves as Kant’s “Second Law of Mechanics,” namely: “Every change of matter has an external cause” (Kant 2010: 251; *MAN*: 4.543).37

My main substantive finding regarding this principle—and the transcendental-philosophical rub of the “problem of teleology” in the *Dialectic*—is that Kant, in the third *Critique*, does *not* demote the principle of mechanism to a regulative principle of a merely heuristic form of subjective necessity (3.1, below), nor to a regulative principle of a stronger, non-heuristic form of subjective necessity (3.2, below). Instead, Kant quite simply leaves it alone (4.1, below). Kant does, however, advance a *separate*—yet, also fully necessary (i.e., *not* merely subjectively necessary)—regulative principle of mechanistic judging (4.2, below). This *subjective maxim of mechanistic judging*,38 distinct from but derivative of the *objective principle of mechanism*, must now take center stage.

2.3 The Thesis

Given Kant’s apodictic formulation (“all … must”), it is evident that the thesis of Kant’s antinomy—in spite of its status as a merely *regulative* principle for reflection—nevertheless advocates a *necessary* constraint on our judging of natural origins. The principle, as stated, is a regulative principle that tells us how we—in all cases of its application—*must judge*. It is not a regulative principle that merely tells us how we—in all cases of its application—*must seek* to judge. The latter type of principle would be merely subjectively necessary as it entails the permissibility (if undesirability) of appeal

---

36 See Allison (2003: 221).

37 I thus disagree with Hannah Ginsborg’s assessment that Kant uses the term “mechanism” so broadly as to include in it his dynamical theory of matter in terms of attractive and repulsive forces (Ginsborg 2001: 239; Quarfood 2004: 196ff.). Not only does Kant, as noted, give a very prominent place to the metaphysical causal principle from the *Foundations* in the introduction to the third *Critique*. He is in equal measure silent about his dynamical theory of matter (he only considers the dynamism of nature in his discussion of the sublime). There is, moreover, a good explanation for Kant’s odd silence, in the third *Critique*, about his dynamical theory of matter. By 1787—just as he was beginning to work on the third *Critique*—Kant very likely became aware of a (soon to be conceded) threat of circularity in his dynamical theory (Westphal 2004: 189ff.).

38 As we will see, there is no inconsistency in the notion that a “subjective maxim” be more than merely subjectively—e.g. technically-practically or, indeed, transcendentally—necessary (see 3.1 and 4.2, below).
to non-mechanistic (e.g. teleological) causes in an account of natural origins. The regulative principle that Kant in fact proposes in the thesis of the teleological antinomy, by contrast, entails the im permissible of appeal to non-mechanistic causes in an account of natural origins. It thus advocates the universal necessity, for judging natural origins, of the maxim of mechanistic judging.

Lest Kant’s insistence on the necessity of judging natural origins mechanistically be seen as a momentary lapse in his own comprehension of the regulativity of what is, after all, a mere “maxim of a reflecting power of judgment” (Kant 2000: 259; KU: 5.387), we find Kant unyielding on the point. In fact, he insists that “if [mechanism] is not made the basis for research [into natural origins], then there can be no genuine cognition of nature at all” (ibid.). This is, perhaps, an overstatement. It is not clear why a principle governing mere research into the causal ancestry of sensibly given objects would—indeed how it could—be a necessary condition of the possibility of our cognition of those objects. Assuming, then, that the “genuine cognition of nature” Kant has in mind here is, more specifically, the cognition of natural origins, Kant clearly holds that mechanistic judging is an indispensably necessary condition of the possibility of that.

And, lest one think that the maxim of mechanistic judging be a merely contingent (e.g. sociological or psychological) constraint on a science of origins, Kant is adamant that we not only must judge all natural origins mechanistically but are fully justified in doing so: “the authorization to seek for a merely mechanistic explanation of all natural products is in itself entirely unrestricted” (Kant 2000: 286; KU: 5.417, emphasis Kant’s). Moreover, whence the reflecting power of judgment should derive this authorization is also perfectly clear, since Kant explains, on first mentioning the maxim of mechanistic judging, that it is “provided to [judgment] by the mere understanding a priori” (ibid., 258; 5.386). Nor is it a mystery which objective principle of mechanism reflecting judgment’s subjective principle of mechanistic judging derives from. After all, Kant’s “metaphysical” causal principle—or, the category of causality under conditions of

---

39 See Allison (2001: 224) and Quarfood (2004: 168); see also 3.1, below.
40 See 4.1, below.
corporeality—states that the “alteration [of a movable body in space] must have an external”, which is to say a mechanistic “cause” (ibid., 68; 5.181).41

Kant, in short, is expressly committed to the universal (and not merely subjective) necessity of judging natural origins mechanistically—despite the fact that the maxim of mechanistic judging is a merely regulative principle for the reflecting power of judgment. But is he also consistently committed to that necessity? In the concluding paragraph of § 70—having presented the antinomical conflict as one between regulative principles, and having suggested, but rejected, a constitutive transformation of that conflict (see 4.1, below)—Kant offers a detailed comment on the regulative principles comprising thesis and antithesis. It is at this juncture that defenders of the merely subjective necessity of the regulative principle of mechanistic judging reach for (what turns out to be) the only textual arrow in their quiver.

In his comment on the thesis-position, so the story goes, Kant now explains that the maxim of mechanistic judging does not have the strong force of a rational “must”, after all, but merely a gentler heuristic “ought”. Kant says:

“For if I say that I must judge the possibility of all events in material nature and hence all forms, as their products, in accordance with merely mechanistic laws, … that only indicates that I ought always to reflect on them in accordance with the principle of the mere mechanism of nature, and hence research the latter, so far as I can …” (Kant 2000: 259; KU: 5.387, my emphases).

The two parts omitted from this passage are, as we will see, critical for its meaning. Prima facie, though, Kant certainly does seem to be caught with his hand in the modal cookie jar and (forced to explain himself) to offer a rather artless turnaround or “reinterpretation[]” (Quarfood 2004: 168; see also 192) of the first maxim—issuing in what Henry Allison considers “the thesis, properly construed” (Allison 2003: 224). Kant, on this view, no longer says: “in order to judge natural origins, you must judge them mechanistically”. He only says: “in order to judge natural origins, you ought to judge them mechanistically”. This makes mechanistic judging a merely subjectively necessary “guideline[] or directive[]” (ibid.). for the reflecting power of judgment, since that

41 Makkreel’s assessment that “there is no sign that Kant [in the third Critique] has changed his mind about mechanical causality constituting nature” (Makkreel 1991: 53) is, thus, undoubtedly correct.
principle now tacitly continues: “… but you need not”. This reading appears, moreover, to be supported by Kant’s qualification “so far as I can” at the end of the passage. That remark seems to serve as a reminder of just the sort of limit to the mechanistic explicability of causal processes in nature that would give the lie to any purported universal necessity of judging natural origins mechanistically.

As to those omissions. The second omission in the earlier quotation is a passage discussed already: Kant claims that if we did not judge natural origins mechanistically, we could have no genuine cognition of those origins at all. Evidently, this is the opposite of the claim that judging mechanistically is merely a subjectively necessary “guideline” for the explanation of natural origins. But, precisely for that reason, the passage provides few hints as to why Kant would (or how he could) say that this “must” indicates an “ought”.

The first of the omissions in the earlier quotation is more instructive in this regard. In it, Kant explains what the first maxim’s prescription of a necessary rule for judging causal origins does not mean: “… I do not thereby say that they [i.e. all events in material nature] are possible only in accordance with such [i.e. merely mechanistic] laws (to the exclusion of any other kind of causality) …” (Kant 2000: 259; KU: 5.387, my emphasis). As the parenthesis makes clear, the universal necessity, for an account of natural origins, of judging mechanistically, does not entail the universal sufficiency of that type of judging, for that purpose. Other forms of judging (notably, teleological judging) may, at least on occasion, also be necessary. Kant, here, evidently goes beyond the thesis and sketches the route to an eventual resolution of the antinomy. What is important for present purposes is Kant’s unambiguous position that the antinomy is not concerned with the necessity, but instead with the sufficiency of mechanistic judging. Thus, the envisioned limit to my ability to pursue mechanistic explanations is presented by the (at least occasional) co-necessity of other forms of judging, hence, by the insufficiency, in these cases, of judging mechanistically alone—not by its non-necessity.

Why, then, does Kant say that the necessity of the maxim of mechanistic judging “only indicates that I ought to reflect on [natural origins] in accordance with the principle of the mere mechanism of nature” (ibid.)? Kant’s point is simple. Unlike mechanistic
judging of causal origins, teleological judging of causal origins is not always necessary.\textsuperscript{42} Thus, Kant says that we are apprised of circumstances in which teleological judging is “required” (ibid.) only “through specific experience” (ibid.) or “upon occasional prompting” (ibid.). A moment’s thought will show that, whatever the mark by which the necessity of teleological judging discloses itself to us, discerning such occasions from others will itself require judgment. Now, on occasions where teleological judging is deemed necessary, neither the teleological nor the mechanistic form of judging is alone sufficient for a comprehensive accounting of the object’s origin.\textsuperscript{43} Yet, given that we have an a priori assurance of the necessity, for judging the object’s origin, of at least the mechanistic form of judging (since that is always necessary), Kant’s straightforward point is that we should be conservative in the exercise of our judgment. Specifically, we should not get carried away in the pursuit of teleology in nature and run the risk of making unwarranted use of an explanatory principle (teleological judging) to which judgment, in its accounting for an object’s origins, need only occasionally also appeal, at the expense of cutting short an explanatory strategy (mechanistic judging) to which any successful account of causal origins in nature always must appeal.\textsuperscript{44}

Accordingly, the “ought” Kant discerns in the mechanistic maxim is a version of the “necessitation [Nötigung] of the will” (Kant 1996: 70; GMS: 4.417) which accompanies any technical-practical rule or, more generally, any hypothetical imperative, when the subjective condition of its adoption is met. In the present case this necessitation can be expressed as follows: “if you seek to judge natural origins, then (by the mechanistic maxim) you must judge them mechanistically (regardless of other forms of judgment which may also occasionally be required), so you ought to do so”. Kant’s appeal to how we “ought” to judge, therefore, does not invalidate his commitment to how we “must” judge (by comparison, on Allison’s interpretation, Kant’s “ought” replaces his

\textsuperscript{42} Just how we are to imagine a non-universal form of necessity is, to be sure, a difficult question (nor is it one that only haunts Kant’s teleology: in Kant’s aesthetics, it arises in the form of the question how Kant can possibly prevent the conclusion that everything is beautiful). Fortunately, the difficulty need not concern us at this point, since all that matters for now is the fact that Kant is committed to the occasional necessity of teleological judging, not how it might work (see 5, below).

\textsuperscript{43} The key to the resolution to the antinomy lies in the idea that, in those cases, a comprehensive accounting of the object’s origin must appeal to supersensible grounds as well (see KU, § 78). See Guyer (2005: 362).

\textsuperscript{44} Paley’s Natural Theology and the Bridgewater Treatises are the modern loci classici of a failure to abide by this prescription.
“must”). Rather, it reflects the recognition that the adoption of the maxim of mechanistic judging (as a principle which, upon adoption, governs judgment with necessity) is itself ineliminably contingent. It depends not only on the adoption of the research project in question, but on a condition of agent-rationality (“whoever wills the end wills … also the means”; ibid.) that, in the case of human agents, is only imperfectly satisfied. Kant’s appeal to how we ‘ought’ to judge, accordingly, confirms his commitment to the necessity of the maxim of mechanistic judging.

2.4 The Antithesis

Clearly concerned not to be misunderstood on his commitment to the necessity of the mechanistic maxim for judging causal origins in nature (although, if history is any guide, clearly unsuccessful in this regard), Kant underscores his commitment by turning to the question just what the second maxim denies. Paralleling his procedure in the preceding elaboration on the first maxim, Kant begins his comment on the second “teleological”\(^45\) maxim by explaining what that maxim does not entail. Kant notes that the second maxim neither entails that it is not possible to judge the objects in question mechanistically, nor (if it is thus possible to so judge them) that it is not necessary to do so. As Kant puts it, when—in accordance with the second maxim, and “upon occasional prompting” (Kant 2000: 259; KU: 5.387)—we deem teleological principles necessary for judging the causal origin of certain “forms of nature” (e.g. organisms), this neither means i. that “those forms [of nature] would not be possible in accordance with the mechanism of nature” (ibid.; 5.388, my emphasis), nor ii. that “reflection in accordance with the first maxim is […] thereby suspended” (ibid., my emphasis). Kant’s point could hardly be clearer: since the occasional necessity of teleological judging does not suspend “reflection in accordance with the first maxim,” and since the latter is reflection in accordance with a necessary maxim (see 2.3, above), teleological judging does not suspend the necessity (let alone possibility) of judging causal origins mechanistically.

But what about Kant’s renewed claim, in this context, that one “is required to pursue [the first maxim] as far as one can” (ibid.). This certainly sounds as though, beyond that limit—wherever it be drawn—lies the land of “mechanical inexplicability”.

\(^45\) See 2.1, above.
Now, the universal necessity of mechanistic judging for *empirical* explanations of an object’s possibility entails that this limit to mechanistic judging cannot be presented by an object’s empirical properties, e.g. by “finalistic features” (Quarfood 2004: 195) or by alleged teleological causal loops.⁴⁶ But there is an alternative. Some commentators have suggested that the mechanistic inexplicability of certain processes in nature marks a form of underdetermination of our causal theories by the available evidence.⁴⁷ Yet, underdetermination, too, will not do as the source of Kant’s alleged commitment to the mechanistic *inexplicability* of those processes. Not only does the ubiquity of the phenomenon of underdetermination make any attempt to confine it to the realm of biological objects hopeless. More importantly, while a certain form of underdetermination characteristic of theory formation is perhaps *the* central epistemological concern of Kant’s third *Critique*,⁴⁸ that form of underdetermination (however daunting) is addressed *within*—it does not extend *to*—the transcendentally-logical frame of critical philosophy itself. Belief formation and theory choice may be underdetermined for Kant, but not *radically* so: beliefs formed and theories chosen will be all (if not only) governed by the principle of causality under conditions of corporeality, hence by causal mechanism. Kant, that is to say, is not Hume, and certainly not Quine, and the necessity of transcendental principles (as well as of metaphysical principles derived from them and of maxims of judgment in turn derived from those) is not measured in psychological coin or the relative likelihood of our willingness to revise them. On the other side of the (contingent) limit to our ability to push mechanistic explanations of causal processes further can only be: more mechanistic explanations or else “no genuine cognition of nature at all” (Kant 2000: 259; *KU*: 5.387).

If the antithesis of Kant’s “Antinomy of the Reflecting Power of Judgment”, therefore, does not deny the *necessity* of mechanistic judging, then what *does* that second maxim deny? Even a cursory look at Kant’s formulation of the antinomy suggests an answer: both the thesis and the antithesis are formulated in terms of the explanatory sway not of “mechanistic laws” but of “*merely* mechanistic laws”. Kant’s thesis proclaims: “All generation of material things and their forms must be judged as possible in

---

⁴⁶ See Teufel (2011b).
⁴⁸ See, especially *KU*, § V, §§ 76-7.
accordance with *merely* mechanistic laws” (ibid., my emphasis). Kant’s antithesis rejects the unchecked role for judging natural origins of “*merely* mechanistic laws” (ibid., my emphasis).

Now, on the assumption that Kant, in the antinomy, seeks to take mechanistic judging down a notch (denying its status as a universally necessary principle for judging natural origins by turning it into a merely heuristic tool), it is, perhaps, natural to interpret Kant’s “*merely*” here as a belittling swipe at the pretensions of that overrated form of judging. But that assumption has been proven wrong (see 2.3, above). With it, goes the only plausible interpretation on which Kant would deride mechanistic judging. Given Kant’s explicit insistence that the occasional necessity to judge certain forms of nature teleologically does *not* suspend the universal necessity of judging the origin of those forms mechanistically, it follows that Kant’s “*merely*” in the formulation of the antinomy can only mean “exclusively”. Thus, the thing in dispute in Kant’s “Antinomy of the Reflecting Power of Judgment”, the thing which the first maxim asserts and which the second maxim denies, is the *exclusivity* of the required employment of mechanistic forms of judgment. Kant’s antinomy concerns the *universal sufficiency* of an otherwise undisputedly universally necessary form of judging.

It is worth pointing out, in this context, that there are several passages in which Kant restates this basic point of the antithesis in sometimes dramatic language. Most famously, perhaps, Kant asserts that “we can boldly say that it would be absurd for humans even to make such an attempt [at explanation according to mechanistic principles] or to hope that there may yet arise a Newton who could make comprehensible even the generation of a blade of grass according to natural laws that no intention had ordered” (Kant 2000: 271; *KU*: 5.400). It is primarily re-affirmations of the antithesis position like this one that feed the view of Kant’s commitment to the “mechanical inexplicability” of organic processes. But this seems to pay insufficient heed to the dialectical nature of the *Dialectic*. Not only are the claims of such passages not always as transparent as they might at first seem (are natural laws that an intention *has* ordered—or that we must regard that way—therefore no longer mechanistic laws or, even, no longer

---

49 See *KU*: 5.360, 400, 410f.
natural?); what is more, Kant’s reaffirmations are fully consistent with the interpretation of the antithesis defended here: that mechanistic judging, though insufficient for an explanation of organisms, is nevertheless universally necessary for that purpose. In the present case, what Kant diagnoses as “absurd” is not the attempt at a mechanistic explanation *per se* but the notion that such an attempt could yield an “adequate” (ibid.)—hence, sufficient—acquaintance with and explanation of the generation of the blade of grass. If, according to the antithesis position, a non-mechanistic principle were indeed *also* necessary for such an explanation, then denying the possibility of a Newton of the graminoids (whose mechanistic explanations would have to be alone sufficient) is exactly what Kant must do.

3. Two Interpretations

Textually, then, the situation is as clear as such things ever get: Kant explicitly, repeatedly (and from the perspective of both thesis and antithesis) states his unwavering commitment to the undiminished necessity of *judging* (as opposed to the merely subjective necessity of *seeking to judge*) natural origins mechanistically. The fact that Kant professes this commitment with such tenacity is, of course, no proof that he is in fact entitled to it. Hence, the textual facts alone are not sufficient to dislodge the view that the regulativity of Kant’s maxims of the reflecting power of judgment entails the merely subjective necessity of the respective forms of judging they promote. In this section, I discuss the arguments that have been proposed in support of this subjective necessity—and why they fail.

3.1 Revisionism

I call “revisionist interpretations” of the antinomy those that, in an open effort to improve Kant’s text, bite the textual bullet (presented to the maxim’s presumed heuristic status by Kant’s commitment to the undiminished necessity of the maxim of mechanistic judging) and call for a “reinterpretation[]” (Quarfood 2004: 168, 192) or “proper construal”\(^{51}\) of the mechanistic maxim—stripping it clean off the necessity Kant accords it. A fig leaf of exegetical propriety is provided by the notion that this reinterpretation is,  

\(^{51}\) See Allison (2003: 224).
really, Kant’s own idea. The evidence adduced for this notion is the passage in which Kant explains that the necessity of the maxim of mechanistic judging merely indicates that we “ought” to abide by it. But since Kant, there, deliberately affirms (rather than awkwardly retracts) his commitment to the universal necessity of judging natural origins mechanistically (see 2.3, above), the revisionist label seems appropriate.

With the conflicting maxims of judgment in the antinomy now considered merely subjectively necessary, revisionism squarely faces the problem how there can be a genuinely antinomical conflict (i.e. the unavoidable, but false, appearance of a genuine contradiction) between those maxims. Evidently, the occasional need to judge natural origins teleologically, discussed in the antithesis, would not even be in a merely apparent conflict with the need to judge natural origins mechanistically, discussed in the thesis, if the claim of the latter were, simply (as revisionism has it) that: “we ought always to reflect on natural products in terms of mechanical law, as far as we can, but that we also, on occasion, should consider the matter from the point of view of final causes” (Quarfood 2004: 168).52

In response to this problem, Henry Allison and Marcel Quarfood—the leading proponents of the view—have suggested, that, while there is indeed no unavoidable appearance of a conflict between these maxims for judging natural origins (when thus ‘properly construed’), the real point of Kant’s antinomy is that we are unavoidably committed to constitutively transformed versions of these maxims. Kant presents these constitutive versions immediately after stating the maxims in their original regulative form.53 Kant says:

“No, were one to transform these regulative principles for research into constitutive principles of the possibility of the objects themselves, they would say: Thesis: All generation of material things is possible in accordance with merely mechanistic laws. Antithesis: Some generation of such things is not possible in accordance with merely mechanistic laws”. (Kant 2000: 259; KU: 5.387)

52 See Allison (2003: 224).
53 The reason why Allison and Quarfood do not consider this a breach of the first interpretive principle to which each subscribes—i.e. that the antinomical conflict obtains between the regulative versions and not between the constitutive versions of the maxims (see 1.1, above)—is that our alleged “tendency to mistake the maxims for constitutive principles [continues] even after they have been formulated as regulative maxims” (Quarfood 2004: 167).
According to Allison and Quarfood, Kant’s idea in presenting this second, constitutively transformed conflict is that we naturally and unavoidably misjudge our legitimate commitment to merely heuristic maxims of mechanism and teleology and take ourselves to be entitled to the latter “ontological” (Allison 2003: 225) versions. Unlike their merely heuristic counterparts, these constitutive versions—the principle that all phenomena in nature “were in fact produced mechanistically” (ibid.) and the principle that some phenomena in nature were not in fact produced mechanistically—certainly “would contradict each other” (Kant 2000: 259; KU: 5.387). Transcendental critique (in the form of Kant’s Dialectic) is then needed in order to help us recognize our natural and unavoidable misjudgment.

In order to accomplish this, transcendental critique must address the philosophical reason behind the “slide” (Allison 2003: 225) from non-contradictory heuristic to contradictory ontological commitments. This is that heuristic maxims must be grounded in some further principle in order that their claim to “subjective and logical necessity” be legitimized. Since the ontological assumptions on which we “naturally and unavoidably” ground the mechanistic and teleological maxims jointly entail a contradiction, transcendental critique must now find non-contradictory interpretations of those ontological assumptions on which to ground the subjective necessity of the two ways of seeking to judge. The role of the Dialectic, on this view, is thus to justify the subjective necessity of the mechanistic and teleological maxims, much like the role of the Appendix to the Dialectic in the first Critique is to justify the subjective necessity of principles of systematic unity. If no non-contradictory interpretations were available, then the subjective necessity of the maxims would be exposed as untenable (since insisting on that subjective necessity would entail that the contradiction between the ontological assumptions is not apparent but real).

As Allison and Quarfood realize, a transcendental resolution to the antinomical conflict that were to follow the playbook of the Critique of Pure Reason (roughly, 

---

grounding the principle of teleology in the supersensible and assigning the principle of mechanism to the realm of appearances) would not suffice for this justificatory project. To be sure, such a resolution might justify the purported heuristic status of the teleological maxim. But it would also entail that mechanism is fully necessary for judging (as opposed to merely subjectively necessary for seeking to judge) natural origins. As Quarfood makes the point, such a resolution would entail “that mechanism is valid for appearances” (Quarfood 2004: 192). And this is just what Allison and Quarfood wish (against the available textual evidence; see 2.3-4) to deny. In the consequent attempt to avoid an interpretation of Kant’s resolution to the antinomy that rests on an appeal to the supersensible—“purpose or teleology is then not something that pertains to the supersensible” (Quarfood 2004: 192)—Allison and Quarfood instead locate the resolution in Kant’s account of the role of the principle of purposiveness in our discursive understanding in § 77. The two-pronged strategy is to ground the heuristic status of the teleological maxim in the transcendental principle of purposiveness and to ground the heuristic status of the mechanistic maxim in the discursivity of our understanding.

The strategy faces two main problems. First, exegetically, it leaves both commentators in the awkward position of having to explain the fact that Kant, in his official resolution to the antinomy in § 78, provides just the type of supersensible approach he supposedly cannot be providing. Allison responds that Kant, in § 78, is not really talking about the supersensible at all—claiming, implausibly, that “this [supersensible] ground seems to be little more than the principle of purposiveness itself” (Allison 2003: 232). Quarfood argues, more artfully, that Kant offers two

---

55 In this section I will, for simplicity’s sake, follow Allison and assume that the notion of a “teleological maxim” refers to a “regulative principle of purposiveness” (Allison 2003: 230), hence, to the teleological maxim that appears parenthetically in the content of Kant’s “second maxim”—and not to that second maxim (i.e. the antithesis position) at large (for the distinction, see 2.1, above). Ultimately, the challenges facing an attempt to ground the subjective necessity of either of these maxims in the principle of purposiveness are the same.


57 Allison claims that there is basic structural similarity between the resolutions of the Third Antinomy in the Critique of Pure Reason and the teleological antinomy in the Critique of the Power of Judgment. In truth, however, he is just as committed to their dissimilarity as Quarfood, noting (as, given his starting point, he must) that, in the latter resolution the supersensible ground of nature ultimately does not play a significant role (Allison 2003: 232).

“perspective[s]” (Quarfood, 2004: 194) on the antinomy in § 77 and § 78, respectively—the former of which would preserve the heuristic status of the mechanistic maxim.

Second, aside from courting this sort of exegetical unevenness, Allison’s and Quarfood’s strategy is problematic on its own terms. Grounding the heuristic status of the teleological maxim in the transcendental principle of purposiveness—while preserving that maxim’s regulativity—effectively abandons its subjective necessity (see below). Conversely, grounding the heuristic status of the mechanistic maxim in the discursivity of our understanding—while preserving that maxim’s subjective necessity—effectively abandons its regulativity (see 3.2, below).

Turning to the first of these difficulties, it must be conceded that the “connection [of the teleological maxim] with formal purposiveness or systematicity” (Allison 2003: 230) is unquestionably an integral part of Kant’s resolution to the antinomy (see 5, below). The problem is that for Allison’s and Quarfood’s purposes that “connection” must be neither too tight nor too loose—a precarious balance that their interpretation is unable to strike. If the relation of the teleological maxim to formal purposiveness is too tight (say, a deductive or an instantiation relation) then the idea of grounding the heuristic status of the teleological maxim in the principle of purposiveness fails relatively straightforwardly. The principle of purposiveness is, after all, a transcendentally necessary regulative principle. Kant, to be sure, also calls it a “subjective principle (maxim)” (Kant 2000: 71; KU: 5.184). But its subjectivity is tied to its regulativity (namely, to its status as a judgment-determining—specifically, reflecting-judgment-determining, or heautonomous—rather than an object-determining principle). Its subjectivity is evidently not tied to its necessity, which is the transcendental necessity of a principle that holds a priori for all cognition and, therefore, is not the subjective necessity of a merely heuristic principle for research. Thus, if the teleological maxim is supposed to derive from (or be an instantiation of) the transcendental principle of purposiveness, then taking this to establish the merely heuristic status of the teleological maxim would require additional argument—either to the effect that Kant’s newest transcendental principle fails to be genuinely transcendental, or to the effect that teleological judging loses that transcendental necessity somewhere along the way. No such argument is presented.
Allison, at any rate, thinks that the relation between the transcendental principle and the heuristic maxim is looser than this—more opportunistic than analytic but not, therefore, gratuitous. Allison explains that the transcendental principle of purposiveness “require[s] us to investigate organic beings in light of the model of purposiveness because only in this way can we even begin to conceptualize them” (Allison 2003: 233)

The idea that the teleological maxim thus has a transcendental stamp of approval, even as it does not, strictly speaking, derive from the transcendental principle of purposiveness, is certainly the notion Allison needs. But support for it is lacking. To begin with, Kant does not claim that “we cannot begin to conceptualize” organisms mechanistically—he only claims (in the passage Allison cites in support) that mechanism fails to be an “appropriate” principle for judging the “inner possibility” (Kant 2000: 36; EE: 20.235) of otherwise very much conceptualizable organic beings. If teleological judging is thus less vital to conceptualizing organisms than Allison claims, it is, more importantly, less transcendentally supported. Allison’s claim to the contrary is based on the questionable assumption that the transcendental principle of purposiveness is itself the source of “the model” of purposive judging. It is not. Kant’s technical concept of “purposiveness” (as the causality of a concept with regard to its object) derives from the (partly) empirical notion of artifactual causality. It is on the model of this type of causality that Kant first explicates the principle of cognitive order whose transcendental status he seeks to establish in the third *Critique*. But if the transcendental principle of purposiveness is thus *not* the source of the model of purposive judging, then, the purported link between the teleological maxim and the transcendental principle proves spurious. And since, on an empirically based model of purposiveness, we cannot distinguish a genuine “subjective and logical necessity” to seek to judge teleologically from the merely contingent psychological appeal of doing so, the heuristic status of the teleological maxim remains without philosophical justification.

More problematically still, even if the requisite (non-analytic, yet non-gratuitous) connection between the teleological maxim and the transcendental principle of purposiveness could be found, the idea that the transcendental principle “requires” that we judge organic beings teleologically is premised on the notion of the “mechanical inexplicability” of those beings. This notion, in turn, is based on the idea that Kant, in the
third *Critique*, no longer treats the principle of mechanism as equivalent to the principle of causality. Specifically, it is based on the idea that the formerly *objectively* necessary principle of mechanism has been demoted to a now merely *subjectively* necessary principle—thereby making room for the (objectively) *non*-mechanistic causal processes whose consequent “mechanical inexplicability” is to underwrite the subjective necessity of the requirement to judge them teleologically.

The regulativity (hence, non-constitutivity) of the maxim of mechanistic judging, may seem like *prima facie* evidence in favor of this idea of a reversal in mechanism’s fortunes and, hence, of mechanistic judging’s (now) merely subjective necessity. But if the argument is not to become question-begging at this point—that is, if the idea of the merely subjective necessity of the maxim of mechanistic judging is not, in turn, to follow from an unsupported antecedent commitment to the idea that regulativity *per se* entails heuristic status—then the success of grounding the subjective necessity of the teleological maxim in a non-gratuitous “connection” to the transcendental principle of purposiveness (even assuming that connection can be found) now rests squarely on the success of finding an independent argument for the subjective necessity of the maxim of mechanistic judging.

### 3.2 “Mechanical Inexplicability”

The most sustained argument (to date) for according a subjective form of necessity to the maxim of mechanistic judging comes from the interpretation of Kant’s Teleology offered by Peter McLaughlin. McLaughlin is genuinely moved by the tension between, on the one hand, the assumption that the antinomically conflicting regulative principles are (as he casts it) merely “heuristic maxims” (McLaughlin 1990: 156) and, on the other hand, the textual fact that these maxims “are said to be necessary” (ibid.). Rather than abandon the latter fact (as revisionism proposes) or the former assumption (as here proposed), McLaughlin tries to square the two. Focusing on the thesis position, McLaughlin searches for middle ground between the merely methodological necessity of universally *having to seek to judge* natural origins mechanistically (which makes the non-conforming judgments envisioned in the antithesis position permissible) and the necessity

---

of universally having to judge natural origins mechanistically (which makes the non-conforming judgments envisioned in the antithesis position impermissible). This middle ground is supposed to lie in a strengthened—not merely methodological, yet still subjective—version of the mechanistic maxim’s necessity. This form of necessity would make the non-conforming judgments envisioned in the antithesis position explanatorily impermissible (allowing for a formal conflict between these positions already at the level of regulative maxims), but would turn non-conforming objects into experiential possibilities (thus grounding the necessity of teleological judging ontologically—and resolving the antinomy in the recognition that what we can experience and what we can explain can, even for Kant, sometimes come apart).

McLaughlin begins his account of the subjective necessity of the mechanistic maxim by noting that Kant, in the Critique of Pure Reason, treats the concepts of mechanism and causality interchangeably or, at any rate, offers little reason to distinguish between them, given that he hardly uses the concept of mechanism at all.60 In the Critique of the Power of Judgment, however, Kant’s attitude toward causal mechanism appears to have changed. Not only does Kant now employ the concept of mechanism with approximately the same (high) frequency as the concept of causality (suggesting a distinction between the two). More surprisingly, in considering the constitutive transformation of the thesis-position of the antinomy, Kant now denies that the principle of mechanism is constitutive.61 Thus constitutively defrocked, Kant relegates the principle, instead, to the status of a maxim for judgment. What, then (one may wonder) has become of the transcendental causal principle, formerly so closely allied with the principle of mechanism? Has it, too, lost its transcendental luster? McLaughlin believes (correctly) that it has not.62 But in order to justify that belief, he must now find a way to distinguish the principle of mechanism from the transcendental causal principle.63 Two

60 See, McLaughlin (1990: 154f.).
61 As we will see, this is a misinterpretation of the constitutive transformation of the antinomical conflict: Kant there denies the constitutivity of a would-be transcendental principle stipulating the existence of empirical causal laws of nature, not the constitutivity of the principle of mechanism (see 4.1, below).
62 Although the idea has had its proponents; see McLaughlin (1990: 142-4).
63 One of the inherent difficulties with McLaughlin’s analysis is that prior to assigning the principle of mechanism new content, he fails to distinguish clearly between the metaphysical and the transcendental causal principles. This makes it difficult to determine just what happens to the metaphysical causal principle after mechanism emerges as a mere sub-species of causality. The question of the fate of the metaphysical causal principle illustrates the implausibility of McLaughlin’s view. Either the metaphysical
steps are necessary. He must i. give the principle of mechanism distinct \textit{content} (which he derives from the nature of our discursivity); ii. accord the principle of mechanism its own form of \textit{bindingness} (one that falls well short of the objective necessity of the transcendental causal principle but one that—consistent with a principle derived \textit{a priori} from our understanding—is more than merely heuristic: a strengthened subjective necessity).

Perhaps the best-loved aspect of McLaughlin’s popular interpretation is his account of the new \textit{content} of the principle of mechanism.\(^64\) McLaughlin locates the evidence for this new content in Kant’s discussion of causal interpretations of material part-whole relations in § 77. According to Kant, when we give causal interpretations not merely of material relations between the parts of a whole (as he had advocated in the first \textit{Critique}),\(^65\) but also of material relations between the parts \textit{and} the whole (as he now proposes we do),\(^66\) we encounter a curious asymmetry. While \textit{“upward”} or \textit{“outward”} \textit{part-to-whole} interactions would be consistent with causal mechanism, \textit{“downward”} or \textit{“inward”} \textit{whole-to-part} interactions would not be. As Kant puts it: “if we consider a material whole, as far as its form is concerned, as a product of the parts and of their forces … then we represent a \textit{mechanistic} kind of generation” (Kant 2000: 277f.; \textit{KU}: 5.408, my emphasis). Conversely, Kant holds that “it is entirely contrary to the nature of \textit{causal} principle, too, must now be given new (narrower) content—but this would ignore the continuing need for a metaphysical interpretation of the remainder of the (wider) transcendental causal principle. Or the metaphysical causal principle must not be given new (narrower) content—this would expose as \textit{ad hoc} the claim that when it comes to physical bodies we somehow must interpret the transcendental causal principle narrowly in terms of \textit{part-to-whole} causality.

\(^64\) As far as I have been able to determine, there are no recent commentators (even among those critical of other aspects of McLaughlin’s interpretation) who do not, in essence, agree with this—the core—feature of McLaughlin’s interpretation. This appears to confirm John Zammito’s assessment, that McLaughlin’s interpretation is the “reigning wisdom” (Zammito 2006: 759) on Kant’s \textit{Dialectic}. Those in agreement with McLaughlin include: Allison (2003: 221), Guyer (2005: 354), Watkins (2009: 213), Huneman (2007: 95n24), Zuckert (2007: 101ff.). Zanetti (1993) does not mention McLaughlin, but reaches the same conclusion: „In dem so verstandenen Mechanismus ist das Ganze das Produkt der Teile“ (ibid. 347). Somewhat less firmly committed are Breitenbach (2006), Ginsborg (2004) and Quarfood (2004). Breitenbach accepts only one element of McLaughlin’s view of mechanism (his restriction of mechanism to an intra-substantial form of causality (Breitenbach 2006: 707). Ginsborg believes that McLaughlin’s conception captures only one dimension of causal relations in nature (and not the one that, in her view, is important for Kant’s \textit{Teleology}). Still, she does think that, as far as it goes, McLaughlin’s conception of mechanism (and \textit{non-mechanism}) is correct (Ginsborg 2004: 37). Quarfood agrees with Ginsborg’s assessment (Quarfood 2004: 201f.).


physical-mechanistic causes that the whole be the cause of the possibility of the causality of the parts” (Kant 2000: 36; EE: 20.236).

McLaughlin takes these passages to present just the sort of “differentia specifica of mechanism” (McLaughlin 1990: 152) that a fall from constitutive status would entail (and whose presence would thus confirm the fall). According to his interpretation, the specific difference of the principle of mechanism is that “[i]n mechanism the parts determine the whole” (ibid.). McLaughlin explains that, since not all causal relations in nature are part-to-whole relations, “this particular relation of parts and whole is no longer supposed to be taken as causality as such, but as a particular kind, which [Kant] calls ‘mechanism’.” (ibid. 154) Kant, that is to say, now identifies mechanistic causality with part-to-whole causality. By thus showing “that mechanism”, for Kant, “is only a particular species of the genus of natural causality” (ibid., 152, my emphasis; namely, the one that goes in an “upward” mereological direction from the parts to the whole), McLaughlin manages, both to provide the sought-for narrower content for the principle of mechanism and yet to retain mechanism’s near-universal applicability to material reality (which, after all, is itself an aggregate of material wholes and their parts).

Yet, McLaughlin’s interpretation faces a rather elementary challenge. A moment’s reflection will show that the identification of mechanism with part-to-whole causality that McLaughlin promotes rests on a confusion of Kant’s actual conditional claim that “if we consider a material whole as an effect of its parts, then we represent a mechanistic kind of generation” with an imaginary converse claim that “if we represent a mechanistic kind of generation, then we consider a material whole as an effect of its parts”. We are to infer from Kant’s actual position (that intra-substantial causal relations in the direction from the parts to the whole are consistent with causal mechanism—suggesting, simply, that material composition is amenable to causal analysis), the radically different (and quite radical) position that all causal mechanism reduces to part-to-whole causality.

Since no further textual evidence of this tectonic shift in Kant’s conception of mechanism is offered, the anticlimactic conclusion one has to draw concerning the “reigning wisdom” (Zammito 2006: 759) on Kant’s *Dialectic* is that it is either based on an exercise in wishful thinking (substituting an imaginary position for Kant’s actual
position) or on a patent non-sequitur (inferring from Kant’s claim that part-to-whole causality is mechanistic that mechanism is part-to-whole causality). But not only is there no textual basis for McLaughlin’s interpretation, there is no strategic need for it either (a perceived strategic need is presumably what has made the position attractive to so many for so long). As we will see, contrary to McLaughlin’s claim, Kant does not deny the constitutivity of the principle of mechanism in his discussion of the constitutively transformed antinomical conflict (see 4.1, below). There is, then, simply no need to try to save the transcendental causal principle from being caught up in mechanism’s fall from constitutive grace by distinguishing the two—since no such fall has occurred.

Having thus (mis)identified mechanism with part-to-whole causality, McLaughlin proceeds to the second step required in order to distinguish mechanism from the causal principle. Since Kant, on McLaughlin’s reading (of the constitutively transformed version of the antinomy), denies that mechanism is constitutive, McLaughlin must now, correspondingly, show that part-to-whole causality is not constitutive. This is relatively easily accomplished. McLaughlin correctly points out that Kant’s constraint on causal interpretations of material part-whole relations (i.e. that wholes are effects of their parts and not vice versa) cannot be derived from the category of causality. The time-determination of the schematized causal principle (according to which an effect can occur simultaneously with, or after—but not before—its cause) simply does not entail which mereological direction (“upward” or “downward”) a causal interpretation of compositional complexity must follow. Accordingly, the constraint in question is not a categorial constraint.

McLaughlin concludes, first, that a form of part-whole causality of an opposite directionality—whole-to-part causality—is a causal and, a fortiori, experiential possibility for intellects like ours. And he suggests that in the causal processes of self-reproducing wholes, like organisms, we find it to be an actuality. This combination of the (alleged) experiential possibility of non-mechanistic causal processes (itself, in turn, the consequence of Kant’s alleged denial of the constitutivity of the principle of mechanism) with the (alleged) phenomenal actuality of such processes in organic beings constitutes

---

68 Ibid.
the modern master argument for the idea of the “mechanical inexplicability” of organic beings. It also paves the way to McLaughlin’s own critical endorsement of a form of teleological realism.69

Following Kant, McLaughlin concludes, second, that the constraint on causal interpretations of material part-whole relations (i.e. that wholes are effects of their parts and not vice versa), if thus “not constitutive of nature,” is a “peculiarity” (Kant 2000: 276; KU: 5.406)70 of our understanding. According to this peculiarity “we have no other way of explaining things in principle [than by reducing wholes to their parts]” (McLaughlin 1990: 176, emphasis McLaughlin). This is both a structural constraint on our judging and, yet, a non-categorial feature of our specifically human type of intellection that need not hold for other conceivable types. McLaughlin thus considers it the subjectively necessary constraint on our judging he was looking for.

Yet, while it is true that Kant recognizes a principled constraint on causal interpretations of material part-whole relations, McLaughlin (like Kant) fails properly to identify that principle (it is not a causal principle) let alone justify it.71 More problematically, even if the constraint could be justified, it would entail, as McLaughlin concedes, that “our understanding cannot do otherwise” (ibid.). This, however, is incompatible with its supposed role as grounding a regulative maxim by which the reflecting power of judgment governs the use of the determining power of judgment. Even necessary maxims, after all, must be followed. A “necessary regulative principle for an understanding like ours” (ibid.) by which the reflecting power of judgment exhorts the determining power to judge how it, by its very nature, already inescapably does judge—is no regulative principle at all.

McLaughlin’s identification of mechanism with part-to-whole causality thus settles him with a constraint on our understanding that, qua structural, formalist constraint, cannot serve as the sought-for regulative principle of mechanistic judging. Accordingly, the regulative nature of Kant’s regulative antinomy remains unexplained. Since the identification in question is, moreover, textually and strategically unwarranted, the idea that Kant is committed to the “mechanical inexplicability” of organic processes

---

69 See McLaughlin (2001).
70 McLaughlin (1990: 169f.).
in nature (based on this identification) proves fully unfounded. Since the revisionist attempt to ground the merely subjective necessity of the teleological maxim presupposes that same “mechanical inexplicability” (see 3.1, above), it, too, must go by the wayside.

4. The Maxim of Mechanistic Judging

The argument which supports Kant’s commitment to the necessity of the maxim of mechanistic judging—and reveals what type of necessity it is—is contained in Kant’s account of the putative “constitutive transformation” of the antinomical conflict in § 70, immediately following his original presentation of the antinomy. Kant’s aim in presenting this second antinomical conflict is twofold. His negative aim is to preempt constitutive interpretations of his teleological antinomy by showing that, while one can easily arrive at the form of a teleological antinomy alleging (the unavoidable appearance of) a conflict between constitutive principles of mechanism, such principles cannot, in fact, be given genuine constitutive content. Kant, that is to say, presents the constitutive transformation of the antinomy per impossibile.72 Kant’s positive aim is to show that the teleological antinomy must then, instead, consist in the unavoidable appearance of a conflict between necessary (not merely subjectively necessary) regulative principles.

Of particular importance, for present purposes, is Kant’s rationale, in § 70, for the idea that a teleological antinomy with genuinely constitutive content is impossible. This rationale demonstrates that the objective principle of mechanistic generation which Kant deems non-constitutive (on both the thesis and antithesis interpretation) is very much not the metaphysical causal principle (i.e. the principle of mechanism). Since Kant thus does not reject the constitutivity of the metaphysical causal principle in the teleological antinomy (or elsewhere), mechanism is indeed, as Quarfood worried, “valid for appearances” (Quarfood 2004: 192). Organic beings (and all other natural beings) very much are mechanistically (fully) explicable (4.1), whence judging them mechanistically is (fully) necessary if we want to give a natural account of their origin (4.2).

72 As we will see, the impossibility of providing genuine constitutive content for thesis and antithesis cannot itself constitute Kant’s resolution to the antinomy (see 4.2, below).
4.1 The Constitutive Transformation of the Antinomy

Kant’s account of the “constitutive transformation” of the antinomical conflict in § 70 consists in:  

i. a conditional statement, whose consequent presents what the thesis and antithesis “would say … were one,” as the antecedent considers, “to transform these regulative principles for research into constitutive principles of the possibility of the objects themselves” (Kant 2000: 259; KU: 5.387; for discussion of the constitutive thesis and antithesis see 3.1, above);  

ii. two sentences in which Kant comments on the proposed transformation. The latter are my focus here.

Kant’s first comment on the putative constitutive transformation is that “[i]n this latter quality, as objective principles for the determining power of judgment, they would contradict each other, whence one of the two propositions would be necessarily false” (ibid.). Kant continues that “this would then indeed be an antinomy, but not of the power of judgment, instead it would be a contradiction in the legislation of reason” (ibid.). Resolving this constitutive antinomy would entail showing which of the two conflicting propositions cannot be true as stated, i.e. which must be interpreted as non-constitutive, after all (failing that, the “contradiction in the legislation of reason” would prove real). Crucially, however, resolving the constitutive antinomy cannot consist in revealing both propositions to be non-constitutive. At least not if the resulting non-constitutive principles continue (unavoidably to appear) to contradict each other. For then the alleged “resolution” would instead turn out to be a mere clarification of what the real conflict is. A genuine antinomical conflict at the level of constitutive principles would eo ipso turn out to be impossible.

Suggesting just this, Kant begins his second comment on the constitutive transformation by noting that “Reason can prove neither the one nor the other of these fundamental [constitutive] principles” (ibid.). Clearly, if reason cannot prove a principle, then that principle cannot be a “constitutive principle of the possibility of the objects themselves” (ibid., my emphasis)—at least not in Kant’s considered (critical rather than dogmatic) sense of the term. Accordingly, Kant’s claim is precisely that neither “constitutively transformed” proposition states a genuinely constitutive principle.

But why should reason be unable to prove a constitutively transformed version of the maxim of mechanistic judging, specifically as advanced in the thesis-position of the
regulative antinomy? After all, the constitutively transformed version of the latter maxim—i.e. “all generation of material things in nature is possible in accordance with merely mechanistic laws” (ibid.)—is *prima facie* virtually identical to the metaphysical causal principle that all “alteration [in material things] must have an external cause” (ibid., 68; 5.181). And Kant presumably thought that reason *can* prove that.73 Why should the constitutive transformation of (the thesis-version of) the maxim of mechanistic judging not be equivalent to the metaphysical causal principle Kant endorses in the Introduction to the third *Critique*?

Continuing his second comment, Kant offers the *rationale* for reason’s inability, noting that we cannot prove the constitutively transformed principles “because we can have no determining principle *a priori* of the possibility of things in accordance with merely empirical laws of nature” (ibid., 259; 5.387, my emphasis). Superficially, Kant’s claim here seems to be that the “generation of material things in nature” (i.e. their actual causal ancestry) is not only governed by the (metaphysical) causal principle in general but by actual empirical causal laws in particular. And there simply is no transcendental-philosophical accounting for the latter. But then the same may be said about all causal processes in nature and, yet, Kant presents a transcendental justification of the universal causal principle in the *Critique of Pure Reason* without similarly worrying that such an account may be threatened by the lack of necessity of empirical causal laws. So, why should the constitutively transformed mechanistic maxim differ?

The reason is not simply that Kant, in the *Critique of the Power of Judgment*, now very much *does* worry about the nature of the necessity of empirical causal laws,74 but—more to the point—that the regulative maxim of mechanistic judging we are to imagine constitutively transformed is *specifically* concerned with them. Thus, in both thesis and antithesis, the regulative maxim of mechanistic judging not only commands that in our pursuit of the project of natural history (i.e. in the investigation of “the generation of material things”) we seek mechanistic *causes*—it specifically exhorts us to explain causal ancestries in accordance with mechanistic *laws*. To transform the regulative principles in

---

73 At least Kant sought to prove it. Whether his attempt was successful is a matter of debate. See Westphal (2004: 244f.).
74 After all, Kant is already concerned about that in the *Critique of Pure Reason* (see Kant 1998: 242, 263f.; A127, B165).
both thesis and antithesis into constitutive principles would, accordingly, be to arrive at principles that postulate “the possibility of things in accordance with merely empirical laws of nature” (ibid.). To be able to prove these principles, as their genuine constitutivity would require, would then be to stipulate a priori that there in fact are empirical laws governing nature—whether exclusively mechanistic laws (according to the constitutive thesis) or not exclusively mechanistic laws (according to the constitutive antithesis). But this would amount to a transcendental, determinative guarantee that it is possible “for our understanding to discover in [nature] an order that we can grasp” (ibid., 72; 5.185). And such a guarantee is anathema to Kant’s project in the third Critique. It is precisely the sort of “determining principle a priori” (ibid., 259; 5.387) that—according to Kant’s foundational position in the transcendental deduction of the principle of purposiveness in § V of the Introduction, of which we are here reminded—“[r]eason cannot prove” (ibid.).75

It is thus important to see that, in considering (and rejecting) a constitutive version of the maxim of mechanistic judging (on either its thesis or antithesis interpretation), Kant does not reject the constitutivity of the principle of mechanism. The latter, while conditionally dependent on the availability of empirical laws (just like the transcendental causal principle itself),76 does not include, as part of its content, a stipulation that there be such laws. The widespread belief that Kant, in the Teleology, does reject the constitutivity of the principle of mechanism is, accordingly, based on a failure to attend sufficiently

---

75 One might object that Kant, in the Introduction(s), only rules out the possibility of a transcendental guarantee of higher-level systematic order among empirical laws (i.e. of an “interconnected experience”), not of lower-level empirical order among appearances (i.e. of experience altogether). Even if the constitutively transformed thesis and antithesis did include a transcendental guarantee that there are empirical laws, this would not automatically guarantee the possibility of higher-level cognizable order (i.e. that these laws fit into a system of laws), only of lower-level cognizable order (i.e. that each governs—hence, that there are—recurrent patterns of events in phenomenal nature). Accordingly, so the objection might go, the former guarantee cannot be Kant’s ground for rejecting the constitutive transformation in question, and the latter is not what Kant appears to be worried about in the Introduction(s). The response must be that, while Kant’s worry about cognizable order certainly extends to (and finds its simplest expression in) a worry about higher-level order, it does not miraculously stop at a (typically ill-defined) lower level (this becomes fully evident in Kant’s considered formulation of the worry in § 77). Systematicity is a logical feature of concepts. If sensible particularity lends itself to conceptualization at all, it eo ipso affords systematic interrelations among concepts and laws—fully non-interconnected cognitions are an impossibility. A determinative transcendental guarantee of the existence of empirical laws would, accordingly, inevitably be a determinative transcendental guarantee of both kinds of order. And this is what, according to Kant’s foundational position in the third Critique, is an impossibility. See Teufel (2011a: 28-32). See also Teufel (forthcoming).
closely to the claim the constitutively transformed maxim of mechanistic judging makes as well as to Kant’s deep and systematic reasons for rejecting that claim. It follows, first, that the metaphysical causal principle which Kant endorses in the Introduction remains in full force in the *Teleology*.\(^7\) It follows, second, that principles that consider the possibility of material things in accordance with *empirical laws* can, in critical philosophy, at best attain regulative status for the power of judgment (i.e. the status of principles governing research).

4.2 Technical-Practical Maxims of Cognitive Conduct

Given the latter two conclusions, it is now possible to understand Kant’s commitment to the necessity of the maxim of mechanistic judging, in both thesis and antithesis, and to explain what kind of necessity it is. *Qua* regulative principle for the power of judgment, hence, *qua* principle governing research, the maxim of mechanistic judging governs a merely optional intellectual pursuit. The end whose attainment the maxim promotes (i.e. the project of “natural history”; see 2.1, above) is not a necessary cognitive end but a contingent one—on a par with other contingent research projects (such as the investigation of matters of mathematics or the study of poetry). That is not to say, however, that those who investigate “the generation of material things in nature,” are not then bound by inherent constraints governing the chosen area of inquiry. It is in this sense that the “maxim of mechanistic judging” is “provided to [the reflecting power of judgment] by the mere understanding *a priori*” (Kant 2000: 258; KU: 5.386; see 2.3, above).

Specifically, we know on *a priori* grounds—namely, by the (never abandoned) metaphysical causal principle—that all events in material nature *must* have mechanistic causes (or they would not be events in material nature). But if all events comprising a material thing’s causal ancestry are thus necessarily mechanistic events, then any *causal-law* explanation of material ancestries must *necessarily* either be (thesis), or be consistent with (antithesis), an explanation in terms of *mechanistic* laws. The mechanistic maxim underlying both thesis and antithesis, accordingly, takes the form of a “technical-

\(^7\) See 3.2, above.
practical” (ibid., 60; 5.172) principle of cognitive conduct: “if you want to judge causal origins, you must judge them in accordance with mechanistic laws”.

The antinomical conflict between thesis and antithesis then arises solely (as was already apparent on textual grounds in 2.4, above) in regard to whether such explanations must in every case appeal to mechanistic laws alone, or whether, on occasion, the (only) available alternative explanatory paradigm offered in the third Critique—i.e. the causality of concepts, or “purposiveness”—may also be invoked. This, at long last, shows why reason’s inability to prove the constitutively transformed regulative thesis and antithesis cannot be the resolution to Kant’s teleological antinomy (hence, why an unavoidable, yet resolvable conflict does not arise at the constitutive level): the remaining regulative principles continue (and, per Kant’s contention, unavoidably so) to (appear to) contradict each other.

The necessity of the maxim of mechanistic judging, qua technical-practical principle of cognitive conduct is, like that of technical-practical principles generally, of a twofold nature. As far as its content is concerned, the principle is technical or belongs to theoretical philosophy.78 Thus, if all generation of material things (qua material things) is necessarily mechanistic generation, then it follows—as a matter of logic—that any explanation of such generation in terms of causal laws must be explanation in terms of mechanistic laws. As far as its form is concerned, by contrast, the principle is practical:79 it is an imperative of skill (in this case, cognitive skill: how best to direct determining judgment) and thus serves as a prescription (an ought) for all those imperfectly rational wills who satisfy the condition of its adoption (i.e. who want to judge the generation of material things), and yet need to be told just what the rational course of cognitive action in pursuit of that goal is.

5. Conclusion: Criteria for a Solution to Kant’s Problem of Teleology

In this paper, I have argued for a reinterpretation of the nature of the antinomical conflict in Kant’s ‘antinomy of the reflecting power of judgment’ in the Dialectic of the Critique of the Teleological Power of Judgment. Contrary to the consensus view, neither

79 Ibid. See n. 9, above.
thesis nor antithesis of Kant’s antinomy present merely subjectively necessary guides for judging causal processes in nature. Instead, the thesis promotes and the antithesis concedes a necessary technical-practical principle which commands—on pain of running afoul of the metaphysical causal principle, hence, of failing to provide an empirical explanation of the phenomena under investigation at all—that the judge of natural histories judge causal origins mechanistically. Only, the thesis proposes—which the antithesis contests—that mechanistic judging is universally sufficient for the task of judging causal origins. Specifically, the thesis demands—given the constitutivity of the metaphysical causal principle—that our research into causal origins adduce all and only mechanistic causes. The antithesis contends that mechanistic judging cannot, in all cases, exhaust the totality of our cognitive engagement with the object before us. We must, on occasion, in addition to (and yet, consistent with) judging an object’s origin mechanistically also judge it teleologically (hence, non-mechanistically)—an apparent contradiction.

This reinterpretation of the nature of the antinomical conflict calls for a significant revision of our conception of i. what the problem of teleology in Kant’s Critique of the Teleological Power of Judgment is; ii. what Kant’s solution to this problem seeks to accomplish. I address these points in their turn.

The present analysis of the antinomy shows that the “problem of teleology” in Kant’s Teleology is not a problem about the proper metaphysical role of the principle of mechanism (nor about the proper epistemic role of the maxim of mechanistic judging). Kant, in the third Critique, is as firmly committed to the necessity of the principle of mechanism (and, a fortiori, to the necessity of the maxim of mechanistic judging) as he ever was and would be. The present analysis entails that the “problem of teleology” in Kant’s Teleology is—perhaps not entirely surprisingly—a problem about the proper place of teleology. The common attitude among commentators has been that once the metaphysical status of causal mechanism has been sorted out, teleological causality will, so to speak, take care of itself. Metaphysically, teleology will then be whatever type of

---

80 Recognition of this is, I think, one of the virtues of Hannah Ginsborg’s account, who strives to give an original characterization of the teleological in normative terms (Ginsborg 2004).
causality remains (be that causality that obtains only within self-organizing systems;\textsuperscript{81} or causality that goes from the whole to the parts;\textsuperscript{82} or no causality at all, but psychological projection\textsuperscript{83}). The nature of teleological judgments, then, depends on whatever it is that teleological causality is (or isn’t).

Kant’s own attitude is markedly different. The nature of the antinomical conflict presented in the Dialectic shows that Kant places three specific, if \textit{prima facie} conflicting, strictures on legitimate teleological judgments of organic beings. As to the metaphysical nature of the thing, Kant lets it conform to our cognition of it. The primary burden of proof of Kant’s resolution to the antinomy—and, \textit{a fortiori}, of a solution to Kant’s problem of teleology—is to establish that these criteria for teleological judging can in fact be met by \textit{one} type of judgment. In the remainder, I spell out what those criteria are. Whether Kant commands philosophical resources to satisfy the three criteria jointly, is a question whose answer depends on an interpretation of Kant’s systematic ambitions in the third \textit{Critique} that goes far beyond what can be pursued here.

\textit{i.} Kant’s resolution to the antinomy must explain teleological judgments of products of nature as (in a sufficiently strong sense) \textit{necessary} judgments. If Kant’s resolution cannot make good on the notion that “judging [certain products of nature] \textit{requires … final causes}” (Kant 2000: 259; \textit{KU}: 5.387, my emphasis), then the \textit{sufficiency} of mechanistic judging of those same products would remain unchallenged—no ground for its insufficiency would be in evidence. The antinomy, as presented, would prove spurious.

\textit{ii.} Kant’s resolution to the antinomy must explain teleological judgments of products of nature as \textit{non}-empirical judgments. If Kant’s resolution cannot make good on his notion from the introduction to the third \textit{Critique}, that “the purposiveness of a thing, insofar as it is represented in perception is also not a property of the object itself (for such a thing cannot be perceived)” (ibid., 75; 5.189), then the conflict would be a real (and not merely an apparent) contradiction. It cannot be necessary to judge the same \textit{empirical} process or property both mechanistically and \textit{non}-mechanistically at the same time. If this were necessary, then Kant’s antinomy, as presented, would prove irresolvable.

\textsuperscript{81} Quarfood (2004: 202f.).
\textsuperscript{82} McLaughlin (1990: 152ff.).
\textsuperscript{83} Guyer (2005: 363).
iii. Kant’s resolution to the antinomy must, nevertheless, explain teleological judgments of products of nature as particular judgments. If Kant’s resolution cannot make good on the notion that we must necessarily judge teleologically only “upon occasional prompting” (ibid., my emphasis)—specifically, regarding biological phenomena—then Kant’s argument in the *Dialectic* would prove to be disingenuous. That is to say, if our teleological judgments of biological phenomena can be justified only as part of a theory according to which all phenomena in nature must be considered as somehow ‘expressive’ of a rational ground of nature, then the resultant anodyne sense in which phenomenal mechanism is subordinate to supersensible teleology would (once again) fully cede the original argument to deflationism. Kant’s antinomy as presented—as a conflict arising, specifically, regarding *biological teleology*—would go unanswered.

The criteria of adequacy for a solution to the problem of teleology, which can be inferred from the nature of the antinomical conflict Kant presents in the *Dialectic* of the *Critique of the Teleological Power of Judgment*, accordingly demand that Kant establish the non-universal (iii.) necessity (i.) of teleological judgments of non-empirical dimensions (ii.) of organic beings. This is undoubtedly a tall, and rather esoteric order. A theory that satisfies the three criteria jointly, if one were possible, will have to rely on the full resources of Kant’s technical apparatus in the third *Critique*. Specifically, it would appear to require that we plumb the *a priori* role, in object-cognition, of the transcendental principle of purposiveness for its suitability to reflect *structure* in the supersensible. Any such structure (even assuming it were *metaphysically* present) would, of course, *ex hypothesi*, bypass our ordinary channels of cognition (imagination and understanding). And Kant is adamant that we are “cut off” from “all possible insight into [the supersensible]” (ibid., 279; 5.410, my emphasis) and are unable to “form the least affirmative determinate concept of [it]” (ibid., 281; 5.412f., my emphasis). This would appear to be the end of it, if the foremost epistemic contribution of the *a priori* principle of purposiveness did not center around an alternative to—or, more accurately, a precondition of—just the form of “insight” that depends on “affirmative determinate concepts”. There is, then, at least a hint that, given its unique reflecting, regulative and

---

84 Guyer (2005: 363).
85 See Teufel (forthcoming).
he autonomous logic, the principle of purposiveness might—through an inflection of its own foundational role in steering conceptual cognition—register structure in the supersensible ground of nature to which all positive, conceptual insight is forever foreclosed to us.

References


