‘Merely Mechanistic Laws’: Causal Mechanism and Kant’s Antinomy of the Teleological Power of Judgment

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Over the last 20 years, a consensus has emerged on the interpretation of Kant’s Antinomy in the Dialectic of the Critique of the Teleological Power of Judgment.1 At the heart of this consensus lies Peter McLaughlin’s reading of the Antinomy, proposed in his 1989 Kants Kritik der Teleologischen Urteilskraft.2 The core of McLaughlin’s view has been endorsed by a broad range of commentators on Kant’s third Critique (including Henry Allison,3 John Zammito,4 and Hannah Ginsborg5) and has been questioned by critics only on tangential methodological grounds6—culminating in John Zammito’s 2006 verdict that McLaughlin’s take on the Dialectic is the “reigning wisdom”7 on this (the central) part of Kant’s Teleology. A consensus, of course, need not be indicative of a convergence upon truth and in this case, I am afraid, it is not.

In what follows I will say very little about McLaughlin’s resolution of the Antinomy in terms of an alleged distinction between mechanism and causality.8 While this is perhaps the best-known feature of McLaughlin’s interpretation—and one that harbors difficulties of its own—it is McLaughlin’s conception of the nature of the antinomical conflict (hence of just what tension needs resolving) that I am interested in.

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4 Zammito, John: “Teleology Then and Now: the Question of Kant’s Relevance for Contemporary Controversies over Function in Biology”. In: Studies in History and Philosophy of Biological and Biomedical Sciences 37.4. 2006, 759.
here. In the first part of my paper, I sketch two competing ways in which the antinomical conflict can be construed: as concerning the problem of the occasional impossibility (or at least non-necessity), or as concerning the problem of the occasional insufficiency of mechanistic judging. In the second part, I argue that the ‘reigning wisdom,’ in settling for the former interpretation, misconstrues (and, quite possibly, simply ignores) the pivotal detail that Kant is concerned with the explanatory prowess not of ‘mechanistic laws’ but of ‘merely mechanistic laws.’ Once we give this detail its proper due, we see that the ‘reigning wisdom’ on Kant’s Antinomy (hence, Dialectic) does not address Kant’s Antinomy (hence, Dialectic).

I. The Elements of the Antinomical Conflict

As in each of Kant’s three Critiques, a Dialectic is the part of the text in which Kant presents sets of equally “natural and unavoidable”9 yet prima facie conflicting philosophical principles, whose conflict can only be resolved (that is to say, revealed as merely apparent) through the resources of the transcendental laws governing the respective Critique’s domain.10 Kant calls such an unavoidable yet transcendentally resolvable conflict an Antinomy.

The antinomical conflict, which the transcendental resources of the third Critique are to help resolve in the Dialectic of the Critique of the Teleological Power of Judgment, is a conflict between two maxims concerning causal mechanism. The first of these maxims proclaims causal mechanism’s unlimited explanatory sway, the second seeks to limit it. Three elements of this Antinomy, in particular, require our attention: first, Kant’s notion of mechanism; second, the circumstance that the Antinomy is a conflict between maxims; third, the fact that the Antinomy concerns the explanatory sway not of ‘mechanistic laws’ but of ‘merely mechanistic laws.’

The fact that Kant frequently invokes causal mechanism in the third Critique (a topic mostly absent from the Critique of Pure Reason) reflects his recognition—first

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10 Kant argues in the introduction to the third Critique that the (reflecting) power of judgment does not have its own “domain” but only a “territory” (KU, AA 05: 177) over which it legislates. While this does affect the nature of the transcendental resources in question (specifically, it determines that the transcendental principle of purposiveness be a ‘heautonomous,’ or procedural, principle in and through which judgment legislates to itself), it does not change the general logic by which the Antinomy finds a transcendental resolution.
expressed in the 1786 *Metaphysical Foundations of Natural Science*\(^{11}\) and again in the Introduction to the *Critique of the Power of Judgment*\(^{12}\)—that critical philosophy must distinguish between *transcendental* and *metaphysical* forms of its principles. Kant explains that transcendental principles determine their objects “only through ontological predicates (pure concepts of the understanding)” (KU, AA 05: 181), while their metaphysical reformulations presuppose *empirical* concepts. Kant’s primary example of this is the causal principle. Kant notes that the *transcendental* causal principle (that ‘every event has a cause,’ i.e., the category of causality) presupposes the ontological concept of a “changeable substance[]” (KU, AA 05: 181). Because of the principle’s consequent high level of abstraction, it is compatible with metaphysical interpretations of causal change (e.g., hylozoistic or monist) that are inconsistent with the specifically Newtonian conception of causality Kant ultimately sought to justify in the *Critique of Pure Reason*. The critical justification of that conception, Kant recognized in the *Foundations*, would have to be the justification of a causal principle that made metaphysical presuppositions. In particular, it would have to be the critical justification of a causal principle that made use of “the empirical concept of a body (as a moveable thing in space)” (KU, AA 05: 181). Presupposing this concept, a causal principle fully consistent with the Newtonian understanding of causal change follows “entirely *a priori*” (ibid.), namely, that change in a movable thing in space must have “an *external* cause” (ibid., my emphasis). It follows that, the critical justification of the Newtonian view of causal change amounts to the critical justification of the *metaphysical* causal principle that ‘every material event has an external cause.’\(^{13}\) Since this metaphysical causal principle presupposes the materiality of the causal *relata* and since it emphasizes the consequent *externality* of the causal relation, it is “closely related to the science of mechanics”\(^{14}\) and, in that sense, a principle of *causal mechanism*.

The topic of causal mechanism looms large in the *Critique of the Teleological Power of Judgment*, not because Kant there revisits the issue of its transcendental

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\(^{11}\) See, e.g., MAN, AA 04: 546.

\(^{12}\) See KU, AA 05: 181.


\(^{14}\) See Allison (2003) 221.
justification (he attempts that justification in the *Foundations*), but because (assuming causal mechanism to be transcendentally well-grounded) Kant discusses the puzzling possibility of an *empirical* irregularity testing mechanism’s clockwork efficiency. He detects this possibility in a recalcitrant tribe of moveable thing in space: organisms.

In order to understand the nature of Kant’s interest in organisms, the next important thing to note is that the Antinomy is a conflict between *maxims* (i.e., between merely subjective principles of action). Unlike other such conflicts in Kant’s *oeuvre*, this one is, then, not a conflict between competing metaphysical visions of an ultimate reality. Instead, it is a conflict between competing epistemic principles guiding empirical investigation, or “regulative principles for research” (KU, AA 05: 387). Accordingly, Kant is interested in organisms as presenting the occasion for an antinomical conflict between principles of *judgment*. If to say that the conflicting principles are principles of judgment is to highlight their status as subjective rather than objective principles, this is not to suggest, however, that these ‘regulative’ principles are wholly optional. If the maxims were optional, then no ‘unavoidable’ conflict could arise between them. What creates the conflict here is, specifically, that the first of the maxims is supposedly an *a priori* constraint on our judging of natural origins, whose unlimited reign the second, empirically based maxim, denies.

The first maxim is this: “All generation of material things and their forms must be judged as possible in accordance with merely mechanistic laws.” (KU, AA 05: 387). Reformulated in terms of the metaphysical causal principle, it is the maxim that: ‘All generation of material things and their forms must be judged as possible in accordance with laws governing the interactions of movable bodies in space.’ Kant explains the non-optional nature of the maxim’s prescription by noting that the maxim “is provided to [the power of judgment] *a priori* by the understanding” (KU, AA 05: 386). Now, the idea of a principle that is supposed to be both an *epistemic heuristic* for the power of judgment and, at the same time, *a priori* and necessary, certainly seems rather odd. The mystery does not run very deep, however. The principle of mechanistic judging is a mere maxim for the power of judgment because there simply is no *a priori* necessity to dictate that intellects like ours *must* investigate questions of natural origin or of “the generation of

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material things.” However, if we choose to employ our power of judgment in the service of investigating questions of natural origin, then—the maxim demands—our answers must be mechanistic answers.

The competing second maxim is a denial of this mechanistic imperative. It proclaims that: “Some products of material nature cannot be judged as possible in accordance with merely mechanistic laws” (KU, AA 05: 387). Kant notes that this maxim is “occasioned by particular experiences” (KU, AA 05: 386). And he adds to the maxim the parenthetical remark that “judging them [the products of nature in question] requires an entirely different law of causality, namely that of final causes” (KU, AA 05: 387). Accordingly, by denying the mechanistic imperative on the basis of contravening experience the second maxim seeks to make room for final causality and teleology.

It is important to note that the Antinomy thus does not address, positively, what sort of causality final causality is, nor what it is about “some products of material nature” (ibid.) that might trigger their teleological demand on us. Instead, the Antinomy narrowly addresses the question whether there is any room, among explanatory approaches to natural phenomena, for explanations that are not mechanistic.

But this way of putting what is at issue in the Antinomy is not yet free from ambiguity. The question raised by the second maxim’s denial of an explanatory strategy based on mechanism can be construed in two different ways. It can either be construed as the question whether non-mechanistic explanations are sometimes required in addition to mechanistic explanations (where the latter are, however, also necessary). On this construal, what is being denied by the second maxim is mechanism’s sufficiency for explaining certain natural phenomena. Or it can be construed as the question whether non-mechanistic explanations are sometimes required as opposed to mechanistic explanations (where the latter are in principle unavailable). On this construal, what is being denied by the second maxim is mechanism’s necessity for explaining the phenomena in question—on the ground that a mechanistic explanation of genuinely non-mechanistic phenomena is impossible.

Which of these challenges we take the Antinomy to address determines what sort of resolution the Antinomy admits of. If non-mechanistic explanations were sometimes required in addition to mechanism, then this requirement cannot rest on empirical
grounds (for, ex hypothesi, on those grounds mechanism holds without fail). Their requirement can, then, only rest on either psychological or transcendental grounds. The resolution of the Antinomy would, accordingly, have to be either deflationist or transcendental idealist. Conversely, if non-mechanistic explanations were sometimes required as opposed to mechanistic explanations, then this requirement would have to rest on empirical grounds (since the presumed failure of mechanism can only be established by actual experience of non-mechanistic forms of causality). The resolution of the Antinomy would, accordingly, have to appeal to teleological realist considerations.

Which of these Antinomies is Kant’s? Hence, what exactly is being denied by the second maxim’s denial of an explanatory strategy based on mechanistic laws: the sufficiency or the possibility (or at least the necessity) of mechanistic explanations of certain natural phenomena? The answer to this question depends almost entirely on the significance of Kant’s carefully placed adverb ‘merely’ in the maxims. We thus need to sharpen our focus. For, the first maxim pointedly asserts—and the second maxim equally pointedly denies—that all generation of material things must be judged in accordance with “merely [bloß] mechanistic laws” (KU, AA 05: 387). The pertinent thing to ask of the Antinomy, accordingly, is this: what is being denied by the second maxim’s denial of an explanatory strategy based on merely mechanistic laws?

The answer to this question is complicated by the fact that there is a potential slide—in Kant’s ‘merely’—from the laudatory to the derogatory. And it is only a mild exaggeration to say that everything in Kant’s Teleology hangs on which rhetorical posture we see him adopt here. The slide in question is one from an emphasis on essentiality to an emphasis on triviality. It is the sort of shift in perspective that would greet us if we awoke to a world in which Kant’s “Critique of Mere Reason” was a classic of Western philosophy. Thus, the answer to our question (‘what is being denied by the second maxim’s denial of an explanatory strategy based on merely mechanistic laws?’) rides on

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16 Once a phenomenon is confirmed as a genuinely non-mechanistic phenomenon, a mechanistic explanation of it is then, ipso facto, impossible.
17 This is indeed the direction in which McLaughlin takes things, when he argues that a form of causality that is not mechanistic but that, nevertheless, is governed by the (metaphysical) causal principle is both ontologically and experientially possible. See McLaughlin, Peter (1989) 138f., 156f. See idem: What Functions Explain. Cambridge. 2001, 27, 173.
whether Kant uses ‘merely’ in an applauding sense, evoking ideas of unmixed purity, or in a disparaging sense, playing on ideas of limitation and impotence.

If the first, then to deny that certain products of nature can “be judged in accordance with merely mechanistic laws” (KU, AA 05: 387, my emphasis) would place the emphasis on the adverb and hence on the exclusive use of the laws in question. This would suggest that mechanistic laws are fully called for in judging those products but that they alone (somehow) fail to do the explanatory trick. Pure mechanism is insufficient—an admixture of further explanatory principles is needed. If the second, then to deny that certain products of nature can “be judged in accordance with merely mechanistic laws” (ibid., my emphasis) would place the emphasis on the adjective and hence on the mechanistic nature of the laws in question. Mechanism would stand indicted as providing no basis for judging phenomena whose exalted characteristics lie so patently beyond its humble reach. With mechanistic explanations of these non-mechanistic characteristics thus impossible, an altogether different form of explanation is necessary.

II. The Nature of the Antinomical Conflict

Peter McLaughlin (and the ‘reigning wisdom’ on the Dialectic) understands the antinomical conflict in the Dialectic in the second sense. As McLaughlin puts it, Kant’s antinomical conflict is one between “the global necessity and the local impossibility of the mechanistic manner of explanation.”19 Treating Kant’s second maxim as advocating that ‘local impossibility,’ McLaughlin evidently does not think that Kant inserts the adverb ‘merely’ into the maxim’s denial of an explanatory strategy based on mechanistic laws in order to challenge the sufficiency, in local cases, of mechanism’s reign. Given the dialectic of ‘merely’ discussed in Part I, this means that McLaughlin either takes the qualifier ‘merely’ in its derogatory sense20 or, else, that he ignores it altogether.

I myself will ignore the latter, uncharitable interpretation and argue, only, that it would be a serious mistake to think that Kant uses the adverb ‘merely’ in the second maxim in a derogatory sense. Three considerations make this clear. First, Kant was, of

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19 McLaughlin (1989) 152, my emphasis.
20 This sense is evident, also, in the interpretation of Henry Allison, one of whose “emendations” (Allison, 2003, 233, n.1) of Werner Pluhar’s translation is to render Kant’s ‘bloß’ as the trivializing “simply” (ibid., 224) in Kant’s subsequent formulation of the first maxim. It is in this formulation that Allison finally takes the maxim to be “properly construed” (ibid.).
course, an ardent, lifelong Newtonian. It is simply implausible that, just in order to accommodate teleology, he would preface talk of ‘mechanistic laws’ with intentionally belittling qualifiers. Kant did not take Sir Isaac for a joke. Second, even if Kant’s intent in the second maxim was to propose limits on the reign of mechanism, it makes no strategic sense that he should employ intentionally belittling qualifiers already in the first maxim—whose purpose would have to be to present mechanism unfettered by the sought-for limits. But we need not rely on intuitions about the strength of Kant’s Newtonianism or the finer points of argumentative strategy. For, third, and most importantly, Kant is fully explicit about what is not being denied by his second maxim, noting that “… it is also not thereby said that those forms [in nature] would not be possible in accordance with the mechanism of nature” (KU, AA 05: 388, my emphasis). Since that is, however, exactly what would be said, had Kant intended the ‘merely’ as a swipe at mechanistic laws (or omitted it altogether), it follows (given the dialectic of ‘merely’ discussed in Part I), that Kant must be using ‘merely’ in the applauding sense discussed.

Anticipating just the sort of reading that has now, despite his best efforts, become exegetical orthodoxy, Kant thus explicitly seeks to forestall interpretations according to which his second maxim advocates the possibility of objects that cannot be judged mechanistically. Kant could not be more clear: even if we reflect on certain “forms of nature” teleologically, “reflection in accordance with the first maxim is not thereby suspended” (KU, AA 05: 388, my emphasis). To be sure, Kant does go on to say that one can press mechanistic explanations only “as far as one can” (ibid.). But, since teleological reflection does not entail the suspension of mechanistic reflection, an inability to press mechanistic explanations further can only mark the sort of contingent inexplicability that any investigation of natural phenomena is sooner or later bound to encounter. It cannot mark the phenomenon at hand as of the genuinely non-mechanistic sort that would make a mechanistic explanation of it impossible.

What does this mean for the nature of the antinomical conflict in the Teleology? Just this: if Kant’s second maxim does not deny the possibility of a mechanistic explanation of objects whose judging nonetheless also “requires an entirely different law of causality,” then the second maxim is simply not in conflict with the requirement that
we judge all products of nature (including the ones that call for alternative forms of explanation) in accordance with mechanistic laws. The first maxim demands that every judging of natural origins must be a mechanistic judging; the second maxim leaves this unopposed, conceding that every judging of natural origins may indeed be a mechanistic judging. The universal necessity of mechanistic judging, therefore, is simply not contested in Kant’s Antinomy. The second maxim is in conflict—only—with the requirement that we always judge in accordance with mechanistic laws alone. Kant’s Antinomy in the Critique of the Teleological Power of Judgment can, then, be presented as follows. Given that our judgments of natural origins must always be mechanistic, those judgments must then either i. always be only mechanistic (Thesis), or ii. not always be only mechanistic (Antithesis).