

KANT AND THE PRINCIPLE OF SUFFICIENT REASON

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MICHAEL DELLA ROCCA ONCE LAMENTED that the principle of sufficient reason (PSR) had “fallen on hard times” for two main reasons.

First of all, previous attempts to argue for the PSR have been remarkably ineffectual. Second . . . a great deal of the best efforts of the best philosophers have been devoted to a direct frontal assault on the PSR. . . . Hume and Kant, for example, made it their mission to articulate and argue for a world-view structured around the claim that the PSR is simply false.¹

PSR has since enjoyed a comeback as the defining principle of (neo-) rationalist metaphysics or metaphysical rationalism. While the new defenders of PSR often invoke Leibniz and Spinoza as the historical protagonists of this principle, they tend to ignore Kant altogether, as if Della Rocca’s above claim has exhausted all one needs to know about his relation to PSR.² In truth, however, Kant has a great deal to say about PSR that not only befits his reputation as a nuanced critic of previous ways of doing metaphysics but should also interest anyone who wishes to mount a metaphysics on PSR.

Kant’s verdict about PSR is never as simple as rejecting it as merely false. To the contrary, being acutely aware both of its centrality to metaphysics and of its vulnerability to attacks (there had been plenty by the time Kant entered the fray), he would make concerted efforts not to refute PSR but to determine the extent of its validity. The result would be a highly complex account of PSR. To anticipate its complexity, consider this basic question: What does PSR say? *The Stanford Encyclopedia of Philosophy* entry on this principle introduces it as a “simple demand for thoroughgoing intelligibility,” according to which

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¹ Michael Della Rocca, “PSR,” *Philosopher’s Imprint* 10, no.7 (2010): 1–2.

² See Martin Lin, “Rationalism and Necessitarianism,” *Noûs* 46 (2012): 418–48; Shamik Dasgupta, “Metaphysical Rationalism,” *Noûs* 50 (2016): 379–418; Fatema Amijee, “Reason Unbound: A Neo-Rationalist Manifesto” (PhD dissertation, University of Texas at Austin, 2017); Martin Lin, “The Principle of Sufficient Reason in Spinoza,” in *The Oxford Handbook of Spinoza*, ed. Michael Della Rocca (New York: Oxford University Press, 2018), 133–54.

“everything must have a reason, cause, or ground.”³ But what does “everything” refer to? Della Rocca gives two options: (i) “for each thing (object, state of affairs, or whatever) that exists or obtains, there is an explanation of its existence, there is a reason that it exists”; (ii) “for each truth, there is an explanation of its truth.”⁴ Kant makes a parallel distinction between material and formal versions of PSR: It means either that every thing (*Ding*) or every proposition (*Satz*) must have its ground or reason (*Grund*). He further specifies the material PSR in terms of whether the concept “thing” is restricted to the domain of objects of possible experience or applied universally and extended beyond the empirical world. By such distinctions (explained in section 2 below), Kant signals that his concern is not whether PSR is true or false simpliciter, but what should be clarified about each version thereof and why such clarifications are important. My goal is to tease out his chief insights along these lines, before bringing them to bear on the more recent (neo)rationalist treatment of PSR.

Before I proceed, a word is in order about the presence of PSR in the *Critique of Pure Reason*. On the surface, Kant just gives this principle a proof that, as Béatrice Longuenesse puts it, “is none other than his proof . . . of the causal principle in the Second Analogy of Experience.”⁵ That is, PSR appears in the guise of the principle “all alterations occur in accordance with the law of the connection of cause and effect” or, simply, “everything which happens must have a cause.”⁶

³ Yitzhak Melamed and Martin Lin, “Principle of Sufficient Reason,” in *The Stanford Encyclopedia of Philosophy*, ed. Edward Zalta, 2018, <https://plato.stanford.edu/archives/spr2018/entries/sufficient-reason/>. PSR is expressed as *principium rationis sufficientis* in Latin and *Satz vom zureichenden Grund* in German. “Reason,” “cause,” and “ground” are the common translations of *ratio* and *Grund*.

⁴ Della Rocca, “PSR,” 1.

⁵ Béatrice Longuenesse, *Kant and the Human Standpoint* (Cambridge: Cambridge University Press, 2005), 117. A similar reading can be found in Alexander Pruss, *The Principle of Sufficient Reason: A Reassessment* (Cambridge: Cambridge University Press, 2006), 37–40. Kant formulates the causal principle differently in the two editions of the *Critique*, and scholars disagree about what his proof in the Second Analogy really comes down to. Five distinct interpretations are discussed in Steven Bayne, *Kant on Causation* (Albany: State University of New York Press, 2004), 45–74.

⁶ Immanuel Kant, *Critique of Pure Reason*, trans. and ed. Paul Guyer and Allen Wood (Cambridge: Cambridge University Press, 1998), B232, A307/B363. These are references to Kant’s *Critique* in the standard A/B form,

Kant leaves this impression in all three places where he refers to “the principle of sufficient reason” by name: He reduces it to the causal principle in each case and claims that, as a synthetic a priori proposition, it can be proven only as a principle of possible experience.⁷

Some have drawn attention to a different guise of PSR in the *Critique*, namely, the “supreme principle of pure reason” (“Supreme Principle” henceforth). It is the principle that “when the conditioned is given, then so is the whole series of the conditions subordinated one to the other, which is itself unconditioned, also given,” or that “if the conditioned is given, then the whole sum of conditions, and hence the absolutely unconditioned, is also given” (henceforth simply “if the conditioned is given, so is the unconditioned”).⁸ According to Omri Boehm, Kant’s criticism of traditional metaphysics largely consists in his attack on this principle, which is “nothing but” PSR or at least expresses PSR “in the fullest generality,” although most interpreters have allegedly failed to register such an equation.⁹ This interpretation is problematic as it stands. For, having explicitly rendered PSR as the causal principle, which is a principle of the understanding, Kant cannot equate the very same principle with the Supreme Principle, which is a unique principle of reason (more on reason versus the understanding in section 3). It is nevertheless the case that, as Paul Franks puts it, in the Supreme Principle one can recognize “a version of the Principle of Sufficient Reason that Kant ascribes to the faculty of reason.”¹⁰

On my reading, Kant incorporates PSR into his Critical account of metaphysics in the guises of both the causal principle and the Supreme Principle.¹¹ This is not a matter of conjoining the findings about PSR

which correspond to its first (1781) and second (1787) editions. References to his other works are to the volume and pagination of *Immanuel Kant: Gesammelte Schriften*, 29 vols. (Berlin, 1902–). Abbreviations and translations used are specified below.

⁷ A201/B246, A217/B264–65, A782–83/B810–11.

⁸ A307–08/B364–65, A409/B306.

⁹ Omri Boehm, “The Principle of Sufficient Reason, the Ontological Argument and the Is/Ought Distinction,” *European Journal of Philosophy* 24 (2016): 556, 574 n. 3, 576 n. 15.

¹⁰ Paul Franks, *All or Nothing* (Cambridge, Mass.: Harvard University Press, 2005), 99. See Marcus Willaschek, *Kant on the Sources of Metaphysics* (Cambridge: Cambridge University Press, 2018), 98–102.

¹¹ By the capitalized “Critical,” I mean what pertains to the “critique” that Kant describes as “a critique of the faculty of reason in general, in respect of

already made by Longuenesse and Boehm among others. Rather, I seek to break new ground and do so in a way that complements the existing literature: Whereas the commentators who recognize that PSR has some significance beyond its kinship with the causal principle have generally focused on its relevance to the possibility of freedom and hence to Kant's practical philosophy,¹² I shall highlight its role in Kant's arguments about the possibility of two branches of theoretical philosophy—metaphysics (section 3) and physics (section 4)—and about the intricate relationship between them. Accordingly, although my exposition (especially in section 2) will involve texts that Longuenesse and others have already analyzed in some detail, I will accentuate different aspects of those texts and draw different lessons than they have done. Ultimately, I seek not only to dispel the kind of misunderstanding about Kant's treatment of PSR that Della Rocca has so plainly expressed, but also to indicate some lessons that today's (neo)rationalists may still benefit from heeding as they attempt to revive PSR as the founding principle of metaphysics (section 5).

II

Kant and the Quests to Prove PSR. Kant, from early on in his philosophical career, must have been aware of the fact that PSR was treated by some as a pivotal principle of metaphysics from which to demonstrate some of its core propositions, while others disagreed. This disagreement played out, for instance, in Leibniz's well-known correspondences with Samuel Clarke during 1715–16: Leibniz touted PSR as one of those “great principles” that could “change the state of metaphysics” and make it a “real and demonstrative” science; Clarke, while granting the truth of PSR, denied it the significance that Leibniz

all the cognitions after which reason might strive independently of all experience, and hence the decision about the possibility or impossibility of a metaphysics in general, and the determination of its sources, as well as its extent and boundaries” (Axi).

¹² Henry Allison, *Kant's Theory of Freedom* (Cambridge: Cambridge University Press, 1990), 11–28; Franks, *All or Nothing*, 99–102; Longuenesse, *Human Standpoint*, 138–40; Omri Boehm, *Kant's Critique of Spinoza* (Oxford: Oxford University Press, 2014), xviii, 108–49.

gave it.¹³ Émilie du Châtelet took Leibniz's side in her *Institutions de Physique* (1740), which was soon translated into German and would occupy a notable place in Kant's philosophical debut a few years later. With PSR, Du Châtelet wrote, Leibniz provided "a compass capable of guiding us in the moving sand of this science [metaphysics]."¹⁴ Both Leibniz and Du Châtelet relied on PSR to derive key metaphysical propositions, such as the existence of God, the nature of space, and the essence of bodies. It is debatable, however, whether either of them succeeded in proving PSR. Leibniz, at least, failed this task according to Kant.¹⁵ The issue, to be clear, is not whether Leibniz offered any proof of PSR at all (he did), but whether he gave the kind of proof that would warrant its role in propping up substantive metaphysical claims like the existence of God (Kant, as we shall see, would say no).¹⁶

Against this backdrop, one can expect that Kant, ever since he began to think deeply about the possibility of metaphysics as a science (namely, a demonstrated system of synthetic a priori cognitions),¹⁷ would pay close attention to PSR along the way and seek to determine what, if any, legitimate role it could play in metaphysics and what kind of proof it would need to deserve such a role. The natural place to find

¹³ G. W. Leibniz, *Philosophical Papers and Letters*, 2nd ed., trans. and ed. Leroy Loemker (Dordrecht: Kluwer, 1989), 684–85, 687.

¹⁴ Emilie Du Châtelet, *Institutions de Physique* (Paris: Prault, 1740), 13.

¹⁵ V-Met-L2/Pölitz 28:551; V-Met/Mron 29:788. These are Kant's "Metaphysik L₂" and "Metaphysik Mrongovius," in *Lectures on Metaphysics*, trans. and ed. Karl Ameriks and Steve Naragon (Cambridge: Cambridge University Press, 1997), 107–286, 297–354.

¹⁶ On Leibniz's proof of PSR and its challenges, see Brandon Look, "Grounding the Principle of Sufficient Reason," in *The Rationalists: Between Tradition and Revolution*, ed. Carlos Fraenkel et al. (Dordrecht: Springer, 2011), 201–19; Paul Lodge, "Leibniz's Justification of the Principle of Sufficient Reason (Mainly) in the Correspondence with Clarke," *Logical Analysis and History of Philosophy* 21 (2018): 69–91. For a reading of Du Châtelet's *Institutions* in light of the Leibniz-Clarke debate, see Sarah Hutton, "Between Newton and Leibniz: Emilie du Châtelet and Samuel Clarke," in *Émilie Du Châtelet: Between Leibniz and Newton*, ed. Ruth Hagengruber (Dordrecht: Springer, 2012), 76–95. On Kant's early engagement with Du Châtelet's work, see Huaping Lu-Adler, "Between Du Châtelet's Leibniz Exegesis and Kant's Early Philosophy," *Logical Analysis and History of Philosophy* 21 (2018): 177–94. Regarding Kant's knowledge of Leibniz's metaphysics, see Stefan Storrie, "On Kant's Knowledge of Leibniz' Metaphysics—a Reply to Garber," *Philosophia* 43 (2015): 1147–55.

¹⁷ To Kant, all properly metaphysical propositions are synthetic a priori (B18).

his considered position in this regard is the *Critique*, which represents his final view about the possibility of metaphysics. As I suggested above, however, we may not get the full picture of Kant's take on PSR or its relation to metaphysics in the *Critique* just by looking at the scant few explicit remarks he makes about it. Even these remarks (the ones that treat PSR as the causal principle), if read in isolation, would seem so casually inserted into the text as to be negligible. After all, Kant's account of the causal principle in the Second Analogy would remain intact had he omitted the references to PSR. Why should he even bother to bring up PSR in this context, then?

To answer this question and uncover all the meaningful ways in which PSR lurks in the *Critique*, it will be instructive to examine other texts where Kant deals with PSR. In what follows, I briefly consider such texts with a focus on these questions: Can PSR serve as a foundational principle of metaphysics, by which to demonstrate its basic claims? If so, what kind of principle must it be, and can it be proven? Kant, as we shall see, would come to recognize the difficulty of finding a nontrivial proof for PSR, while still acknowledging its significance to metaphysics and hence the need both to determine its exact place and to find a proof fitting for that place. This attitude is most pronounced in how he criticizes the proofs by Christian Wolff and company, while indicating that his own *Critique* contains a true vindication of Leibniz's PSR.

We can find Kant's first detailed treatment of PSR in "A New Elucidation of the First Principle of Metaphysical Cognition" (1755; PND).¹⁸ His goal there is to "adduce, in what concerns the law of sufficient reason, whatever may serve to improve both an understanding and the proof of that principle."¹⁹ He devotes an entire chapter to this end, titled "Concerning the principle of the determining ground, commonly called the principle of sufficient ground." Among other things, he gives an "enumeration and resolution of the difficulties which seem to beset" PSR,²⁰ especially those raised by Christian Crusius in *Entwurf der nothwendigen Vernunft-Wahrheiten* (Leipzig, 1745). Rejecting "the demonstration frequently employed by the celebrated Wolff and his followers," Kant offers his own proof of PSR as a principle

¹⁸ In Immanuel Kant, *Theoretical Philosophy 1755–1770*, trans. and ed. David Walford and Ralf Meerbote (Cambridge: Cambridge University Press, 1992), 1–45.

¹⁹ PND 1:387.

²⁰ PND 1:398.

for all contingent beings: “Nothing which exists contingently can be without a ground which determines its existence antecedently.”²¹

Kant seems less certain about the truth of PSR in “The Only Possible Argument in Support of a Demonstration of the Existence of God” (1763; BDG).²² He mentions it in connection with the cosmological argument, which “proceeds from the empirical concepts of that which exists to the existence of a first and independent cause, and then . . . proceeds to the properties of that cause which designate divinity.” The first step of this argument is precarious, Kant claims, insofar as it relies on the “still contested” PSR to infer the existence of a necessary being.²³ But the validity of PSR is not his main concern here. Rather, he grants it for the sake of argument and focuses on criticizing the second step of the cosmological argument for conflating the “logical” and “real” senses of necessity.²⁴

Kant’s notes on metaphysics from the mid to late 1770s show signs of a Critical turn in his thinking about PSR: It starts to look like the causal principle, much as it does in the *Critique*. In the Duisburg Nachlaß,²⁵ for instance, PSR appears as a principle of possible experience: It is “a *principium* of the rule of experience, namely for ordering it.”²⁶

In subsequent expositions, Kant confirms that PSR, considered as synthetic a priori, can be proved valid only as a principle of possible

²¹ PND 1:396–98. For analyses of Kant’s treatments of PSR against the backdrop of the Crusius–Wolff debate, see Gertrud Kahl-Furthmann, “Der Satz vom zureichenden Grunde,” *Zeitschrift für philosophische Forschung* 30 (1976): 107–22; Adriano Perin, “The Proof of the Principle of Sufficient Reason,” *Revista Portuguesa de Filosofia* 71 (2015): 515–30; Eric Watkins, “Breaking with Rationalism: Kant, Crusius, and the Priority of Existence,” in *Leibniz and Kant*, ed. Brandon Look (Oxford: Oxford University Press, 2021).

²² In Kant, *Theoretical Philosophy 1755–1770*, 107–201.

²³ In the *Critique*, as we shall see, Kant would describe this part of the cosmological argument—an argument that he would explicitly attribute to Leibniz—as relying on the Supreme Principle.

²⁴ BDG 2:157–58.

²⁵ The Duisburg Nachlaß is collected in Kant’s *Reflexionen* (R), which are partially translated in Kant, *Notes and Fragments*, ed. Paul Guyer, trans. Curtis Bowman et al. (Cambridge: Cambridge University Press, 2005). I shall refer to each note by the relevant item number, followed by the volume and pagination in the German edition. On the significance of the Duisburg notes, see Alison Laywine, “Kant’s Metaphysical Reflections in the Duisburg Nachlaß,” *Kant-Studien* 97 (2006): 79–113.

²⁶ R4680, 17:665. See R4723, 17:688; R5167, 18:107–08; R5220, 18:122.

experience, while rejecting the proofs offered by the Wolffians. He ascribes two proofs of PSR to Wolff: Having submitted a strict “proof from the principle of contradiction” but “surely comprehend[ing] that it was not adequate,” Wolff has purportedly given a second proof by “appeal . . . to common sense [*gemeinen Menschen Verstand*].”²⁷ The latter proof is presumably what Kant has in mind when he states in the *Critique* that past philosophers, unable to give a proper demonstration of PSR, had to take refuge in the “appeal to healthy human understanding [*gesunden Menschenverstand*]” instead—a move that did more to signal desperation than to establish PSR as a true, objectively valid principle.²⁸ At any rate, one may intend PSR as applicable either universally to “everything that is” (including necessary, supersensible beings) or to the restricted domain of “everything that happens” (contingent, sensible things). While PSR in the latter sense can indeed be proven, Kant contends, the Wolffian PSR is meant as a “universal principle” in the former sense and, as such, is “clearly false/impossible.”²⁹

Kant elaborates on this point in a commentary on Alexander Baumgarten’s attempt to prove PSR as valid for the unrestricted domain of all things. The target proof runs as follows: “If a thing were to have no ground, then its ground would be nothing. Then nothing would be the ground of something, but that is a contradiction.” This reasoning is so ostensibly flawed, Kant argues, that we can “easily refute” it by *reductio ad absurdum*: “you have money in the chest—for if you did not have that [*hättest du das nicht*], then there would be nothing of money [*Nichts vom Gelde*] in the chest, then nothing would be money, thus you must have money.” To put it more formally, Baumgarten’s argument builds on an equivocation between the logical and metaphysical meanings of “nothing” (*nihil*), namely, between “nothing”

²⁷ V-Met/Mron 29:788. Section 1 of Wolff’s *Philosophia Prima sive Ontologia* (Frankfurt and Leipzig: Renger, 1736) is “On the Principles of First Philosophy,” with one chapter on the principle of contradiction (§§27–55) and one on PSR (§§56–78). Having provided his master proof of the latter principle in §70, Wolff tries again to vindicate it by appealing to natural human reason in §74.

²⁸ A783–84/B811–12.

²⁹ V-Met-L2/Pölitiz 28:551. See V-Met/Mron 29:813–14.

as negation, as in *Nihil est sine ratione*, and “nothing” as a signifying concept, as in *Nihil est ratio*.³⁰

Kant explores a different angle when criticizing the treatment of PSR by Johann Eberhard, a self-appointed interpreter and defender of the Leibnizian-Wolffian metaphysics.³¹ To spell out the main flaw in Eberhard’s approach, Kant distinguishes the formal/logical and material (or “transcendental”) versions of PSR. The first states that “every *proposition* must have a reason.” This can be derived from the principle of contradiction. So construed, however, PSR cannot, though Eberhard intended it to, serve as the principle for synthetic judgments about objects. For it is the nature of all logical principles that they “abstract completely from everything concerning the possibility of the object” and are concerned “merely . . . with the formal conditions of judgment.” On the other hand, as a material principle of cognition, PSR does say that “every *thing* must have its ground.” But then it no longer follows from the principle of contradiction (as Eberhard had it). Eberhard masked the problem by collapsing the two formulations of PSR into the vague proposition “*all* has a reason,” so as to “smuggle in the actually material principle of causality by means of the principle of contradiction.”³² In this way, Kant complains, Eberhard acted like one of those “conjurers of metaphysics [who] make sleights of hand and, before one realizes it, leap from the logical principle of sufficient reason to the transcendental principle of causality, assuming the latter to be already contained in the former.”³³

All in all, Kant concludes, these failed attempts to prove PSR suggest that its proof is “the cross [*crux*] of the philosophers.” On the

³⁰ V-Met/Mron 29:815–16. For comparison, see Alexander Baumgarten, *Metaphysics*, trans. Courtney Fugate and John Hymers (London: Bloomsbury, 2013), 77–78, 104–05. Kant’s treatment of Baumgarten’s proof echoes his argument in the “New Elucidation” against Wolff’s demonstration of PSR as “expounded more distinctly by the penetrating Baumgarten” (PND 1:397–98). For a critical analysis of Kant’s treatment, see Courtney Fugate, “Alexander Baumgarten on the Principle of Sufficient Reason,” *Philosophica* 44 (2014): 127–47.

³¹ “On a Discovery Whereby Any New Critique of Pure Reason Is to Be Made Superfluous by an Older One” (hereafter, ÜE), in Kant, *Theoretical Philosophy after 1781*, ed. Henry Allison and Peter Heath (Cambridge: Cambridge University Press, 2002), 283–336.

³² ÜE 8:193, italics added.

³³ Kant, *Correspondence* (Br), trans. and ed. Arnulf Zweig (Cambridge: Cambridge University Press, 1999), 11:36. See Br 11:43–6; ÜE 8:196–98.

one hand, while as a merely logical principle it can be established analytically “by means of the principle of contradiction . . . from mere concepts without relation to sensory intuition,” the resulting principle does not help the metaphysicians who want to use it as a distinct principle for synthetic cognitions. On the other hand, PSR in its material sense cannot be proven analytically, “for the principle ‘if something happens, there must be a ground why something happens’ is a synthetic principle [that] cannot be brought forth from mere concepts.”³⁴ In these terms, Kant recasts Wolff’s failure to prove PSR as follows:

His principle of sufficient reason, since he did not feel obliged to found it on any intuition *a priori*, but traced the idea of it to mere *a priori* concepts, . . . was also not of the slightest help to him in getting beyond the principle of analytic judgments, the law of contradiction, and extending himself in synthetic *a priori* fashion by reason.³⁵

So, although Wolff has admittedly “displayed more clarity, precision, and urge to demonstrative thoroughness than has ever been shown previously, or outside Germany, in the domain of metaphysics,” Kant faults him for having pursued an “erroneous course” in metaphysics due to misunderstandings of its pivotal principles, such as PSR.³⁶ If this principle, as synthetic *a priori*, “cannot be proved other than as a proposition which is valid for all objects of experience” (as Kant explains in the Second Analogy), then the same principle “holds only for phenomena” or “the sensible world,” but “not for things in themselves” or “the noumenal world.” An utter failure to recognize this restriction undermines any metaphysics done in the Wolffian fashion: “[A]ll mistakes of metaphysics consist in this, that propositions [including PSR] that apply only to experience are used beyond this.”³⁷

Bearing on this last remark is a conception of metaphysics as containing two parts or stages. The first is ontology, which is exclusively concerned with the possibility of sensible experience and “does not impinge on the supersensible.” The second, by contrast, seeks to “get beyond the boundaries of possible experience” and make gains in the

³⁴ ÜE 8:193; V-Met-L2/Pölitiz 28:551.

³⁵ “What Real Progress Has Metaphysics Made in Germany Since the Time of Leibniz and Wolff?” (hereafter, FM), in Kant, *Theoretical Philosophy after 1781*, 349–412, at 20:283.

³⁶ FM 20:281–82.

³⁷ V-Met/Mron 29:815, 923.

“field of the supersensible.” This part or stage may be called “metaphysics proper,” as it represents “precisely the most essential occupation of this science.”³⁸ Now, by showing that PSR in the form of the causal principle holds only for the sensible world, Kant has effectively confined it to ontology.³⁹ In that connection, he would add, the mishandling of PSR by the Wolffian metaphysicians reflects a more general problem:

[A]lthough the supersensible, to which the aim of reason is directed in metaphysics, is actually no land for theoretical cognition, the metaphysicians still wandered there confidently *along the lines of their ontological principles*, which are . . . valid only for objects of experience.⁴⁰

The italicized phrase alludes to the Wolffian view that ontology, as the first part of metaphysics, provides “principles” for the second part, which encompasses general cosmology, psychology, and natural theology.⁴¹ Kant finds such an approach self-defeating: When reason seeks insights about supersensible things (God for example) by “help[ing] itself to principles that in fact reach only to objects of possible experience,” it will end up undermining its own goal.⁴²

There is more to Kant’s Critical account of PSR in relation to metaphysics, though, than specifying it as the causal principle and thereby limiting its validity to the sensible realm. He still needs to find a principle that could play the role that was formerly assigned to PSR, to uphold the second part of metaphysics. Kant alludes to this need—and his own fulfillment thereof—in his aforementioned response to Eberhard. The *Critique*, Kant claims, may well be the “true apology” for Leibniz’s metaphysics with its “three peculiarities”—PSR, monadology, and the doctrine of preestablished harmony—against “many opponents who did not understand him” and “even against those of his disciples who heap praises upon him that do him no honor.”⁴³

³⁸ Bxviii–xxi; FM 20:261, translation amended. See “Metaphysik Vigilantius (K₃)” (V-Met-K₃/Vigil), in Kant, *Lectures on Metaphysics*, 415–506, at 29:956.

³⁹ FM 20:281. See my explanation of Kant’s critical ontology in section 3 below.

⁴⁰ FM 20:262, translation amended and italics added.

⁴¹ Christian Wolff, *Preliminary Discourse on Philosophy in General*, trans. Richard Blackwell (Indianapolis: Bobbs-Merrill, 1963), 50–51.

⁴² Bxxx. I will return to this assessment in section 3 below.

⁴³ UE 8:247, 250.

With respect to PSR, Kant is not just referring to his account in the Second Analogy, where it appears as the causal principle. When he asks rhetorically, “Is it really credible that Leibniz wished to have his principle of sufficient reason construed objectively (as a natural law [*Naturgesetz*]?)”, before replying that “this principle was for him a merely subjective one, having reference only to a critique of reason,”⁴⁴ the description does not apply to the PSR/causal principle of the Second Analogy. The latter principle may well be seen as subjective in that, as “a law of the understanding,”⁴⁵ it is only an intellectual condition for cognizing objects. However, as the “law of nature [*Naturgesetz*] . . . through which alone appearances can first constitute one nature and furnish objects of one experience,” it is also objective in that it “determine[s] something *a priori* in regard to objects and their possibility” and is therefore valid for all objects of experience.⁴⁶

In all likelihood, Kant was alluding to the Supreme Principle of reason instead when he described Leibniz’s PSR as a “merely subjective” principle that refers only to a “critique of reason.” Drawing out this connection of PSR to the Supreme Principle is not just a matter of terminological clarification. Rather, as it will become clear in sections 3 and 4 below, Kant has profound reasons to specify PSR as the causal principle and the Supreme Principle, respectively. In brief, prying apart these two principles is, in Kant’s view, vital to the possibility and stability of metaphysics, while tracing both to Leibniz’s PSR allows Kant not only to pinpoint where the Wolffians got it wrong but also to explain why it is so hard to notice the mistakes committed by the Wolffians (section 3). Furthermore, Kant needs the twofold account of PSR to address the contentious issue about the relation between physical and metaphysical inquiries, both being pursuits of the *rationes* or *Gründe* of things (section 4).

⁴⁴ ÜE 8:247–48.

⁴⁵ A542/B570.

⁴⁶ A542/B570; ÜE 8:193. See V-Met-L2/Pölitz 28:551; V-Met/Mron 29:814–16. On the various senses in which Kant uses “objective” and “subjective,” see Huaping Lu-Adler, *Kant and the Science of Logic* (New York: Oxford University Press, 2018), 145–46.

III

PSR and the Possibility of Metaphysics. In the *Critique*, Kant introduces the Supreme Principle as what underwrites the entire second part of metaphysics or metaphysics proper. It expresses the quest for “the *unconditioned*” that “necessarily drives us to go beyond the boundaries of experience and all appearances” and to demand “with every right” that “the series of conditions [be] something completed” and that the unconditioned ground of this completeness be sought in “things in themselves.”⁴⁷ It is by this demand that, as Kant explains later, reason obtains the “transcendental ideas” that supply the subject matters for the three branches of metaphysics proper—“the absolute (unconditioned) *unity* of the *thinking subject*” (soul) for rational psychology, “the sum total of all appearances” (the world) for rational cosmology, and “the thing that contains the supreme condition of the possibility of everything that can be thought” (God) for transcendental theology.⁴⁸ A “subjective introduction” of these ideas “from the nature of our reason” in accordance with the Supreme Principle is a key moment in Kant’s attempt to clear up confusions caused by past metaphysicians—in particular, to eliminate the previously “ambiguous position” of those ideas, as they were “usually mixed with other concepts in the theories of philosophers who do not distinguish them from concepts of the understanding.”⁴⁹ If the mark of the concepts of the understanding (such as categories) is “the unavoidable limitations of a possible experience,” reason obtains each of its ideas by attempting to “free a concept of the understanding” from those limitations and “extend it beyond the boundaries of the empirical.” Reason demands such a move precisely thanks to its Supreme Principle: “[T]his happens when for a given conditioned reason demands an absolute [unconditioned] totality on the side of the conditions . . . thereby making the category into a transcendental idea.”⁵⁰

A crucial distinction here lies between the understanding and reason. These faculties operate on different kinds of data to bring about the unity of understanding (*Verstandeseinheit*) and the unity of reason (*Vernunftseinheit*), respectively, by means of separate principles. The

⁴⁷ Bxx.

⁴⁸ A334–35/B391–92.

⁴⁹ A336–38/B393–96.

⁵⁰ A409/B435–36.

understanding brings about an empirical unity or “unity of a possible experience” when applying itself “directly to the senses and their intuition, in order to determine their object.” It does so by means of its pure concepts or categories (for example, cause and effect) and in accordance with synthetic a priori principles like the causal principle. Such a principle “makes the unity of experience possible and borrows nothing from reason.” Reason, by contrast, “has no immediate reference to [objects] and their intuition, but deals only with the understanding.” It brings a systematic unity into our cognitions without thereby determining any object for us.⁵¹

From Kant’s viewpoint, not recognizing this distinction between the understanding and reason is a basic failing behind past philosophers’ attempts to demonstrate by PSR the propositions that belong in metaphysics proper. This point is most clearly reflected in his analysis of “[Leibniz’s] proof *a contingentia mundi*” or cosmological argument for God’s existence from the contingency of the world.⁵² Here is the argument in Leibniz’s own words:

[W]e must rise to *metaphysics* and make use of the great . . . principle that *nothing takes place without a sufficient reason*; . . . assuming that things must exist, it must be possible to give a reason *why they should exist as they do* and not otherwise.

Now this sufficient reason for the existence of the universe cannot be found in the series of contingent things; . . . [it] is found in a substance which is the cause of this series or which is a necessary being bearing the reason for its existence within itself; otherwise we should not yet have a sufficient reason with which to stop. This final reason for things is called God.⁵³

Such an argument, as Kant parses it, involves two basic steps. The first takes us “beyond the sensible world,” introducing a necessary (unconditioned) being outside the series of contingent (conditioned)

⁵¹ A305–09/B362–65.

⁵² A604/B632.

⁵³ Leibniz, *Papers and Letters*, 638–39. For a study of this argument that focuses on PSR, see Robert Inlay, “Leibniz’s Cosmological Argument and the Alleged Reflexivity of Sufficient Reason,” *Studia Leibnitiana* 31 (1999): 73–81.

existences to serve as its absolute ground. The next step consists in a conceptual analysis of the being in question, to identify it as God.⁵⁴

I now focus on the first step, which Kant describes as an ascendance “from the conditioned in appearance to the unconditioned in concept by viewing the latter as the necessary condition for the absolute totality of the series.”⁵⁵ It takes the form of a syllogism with the Supreme Principle as its major premise: If the conditioned is given, then the unconditioned (necessary) is also given; now sensible objects are given as conditioned (contingent); consequently, the unconditioned is given.⁵⁶ The validity of this argument turns out to be illusory by Kant’s analysis. To derive the existence of a necessary being as the unconditioned ground of the totality of all contingent beings, one would have to equivocate over the middle term “[given as] conditioned” (or “contingency”): In the major premise, this term has “the transcendental signification of a pure category,” which applies to things in themselves in abstraction from all the sensible conditions under which something can be given to us, whereas in the minor it has “the empirical signification of a concept of the understanding applied to mere appearances.”⁵⁷

Thus, if one is “obliged to use no argument except the cosmological one” to prove the existence of a necessary being, one can reach the intended result only through an “entirely illegitimate” shift:

[S]ome have taken the liberty of making such a shift. . . . That is, from the alterations in the world they have inferred their empirical contingency, i.e., their dependence on empirically determining causes, and thus they obtained an ascending series of empirical conditions, which was quite right too. But since they could not find in this series a first beginning or a highest member, they *suddenly abandoned the empirical concept of contingency and took up the pure category*, which then occasioned a merely intelligible series, whose completeness rests on the existence of an absolutely necessary cause.⁵⁸

⁵⁴ A566–67/B594–95. See A585–89/B613–17; A604–12/B632–40. For a thorough appraisal of Kant’s treatment of the cosmological argument in the *Critique*, which is not my aim here, see Ian Proops, “Kant on the Cosmological Argument,” *Philosophers’ Imprint* 14, no. 12 (2014): 1–21.

⁵⁵ A456/B484.

⁵⁶ A497/B525.

⁵⁷ A499/B527. See A247/B304 on “pure category.”

⁵⁸ A458/B486, italics added.

The italicized phrase captures the gist of Kant's analysis. A misuse of the causal principle, which is only a principle of empirical contingency, tops the list of all the "dialectical presumptions" that he takes to be "hidden" in the cosmological argument. This principle, he reminds us (as he has argued in the Second Analogy), "has no significance at all and no mark of its use except in the world of sense." Therefore, one would be unjustified to use it "to get beyond the world of sense" and infer the existence of a supersensible (or intelligible), unconditioned condition or "cause" from the contingency of the sensible world.⁵⁹

This diagnosis comes with two notable caveats. First, precisely because the causal principle is valid only for the sensible world, one cannot use it to deny the possibility of a necessary being just because everything in the sensible world must have a cause. Should such a being turn out to be impossible, "this can by no means be inferred from the universal contingency and dependence of everything belonging to the world of sense." In other words, we must "limit the law of the merely empirical use of the understanding, so that it does not decide the possibility of things in general *nor* declare the intelligible . . . *to be impossible*."⁶⁰

Second, the "dialectical deception" revealed in the cosmological argument so far is nevertheless understandable as "an entirely natural mistake of common reason." For the Supreme Principle that drives the ascendance from the conditioned to the unconditioned is itself "natural and evident."⁶¹ If "in our reason (considered subjectively as a human faculty of cognition) there lie fundamental rules and maxims for its use," the Supreme Principle is one of them. It is just that such rules "look entirely like objective principles," so that what is merely a matter of "subjective necessity" in the use of reason can be "taken for an objective necessity, the determination of things in themselves."⁶² And it may be especially difficult to detect this illusion with respect to "the category of *causality*." For, as the application of this category (in accordance with the causal principle) "provides a series of causes for a given effect, in which one can ascend from the effect as the conditioned to the causes as conditions," it seems only natural for reason, in an inevitable quest

⁵⁹ A609/B637.

⁶⁰ A562–63/B590–91.

⁶¹ A497/B525, A499–500/B528.

⁶² A297/B353.

for the unconditioned, to seek this in an object that can serve as the absolute “cause.”⁶³

Notably, the observation of a subjective principle of reason being mistaken for an objective one echoes Kant’s claim, quoted near the end of section 2 above, that Leibniz’s PSR must be “for him a merely subjective one, having reference only to a critique of reason.” Herein lies what Kant would call a Critical, as opposed to dogmatic, response to the cosmological argument. While the latter response would insist on the contingency of all things and thereby reject the very idea of an unconditioned being as vacuous, Kant has sought to show that “the thoroughgoing contingency of all natural things and all of nature’s (empirical) conditions can very well coexist with the dictatorial presupposition [*willkürlich Voraussetzung*] of a necessary, even though merely intelligible condition.”⁶⁴ A key move serving this end is to split PSR into two principles, namely, the causal principle and the Supreme Principle, and grant them separate jurisdictions. The former is a principle of the understanding, according to which everything in the sensible world is conditioned/caused and the condition/cause can be determined within this world. The latter is a merely subjective principle that expresses the ineluctable need of reason to seek the unconditioned, which it can only posit in the intelligible realm and of which we can have no determinate cognition.

This two-pronged account of PSR not only gives substance to Kant’s claim that the *Critique* may well be the “true apology” for Leibniz’s metaphysics, which had PSR at its core, but also bears on the broader question about the possibility of metaphysics, which is Kant’s main concern in the *Critique*. Earlier I mentioned that he distinguishes two parts or stages of this science, ontology and metaphysics proper. Now we can connect these with the two significations of PSR. Kant rejects the old view of ontology, which “presumes to offer synthetic *a priori* cognitions of things in general [*Dingen überhaupt*] in a systematic doctrine (e.g., the principle of causality),” with *überhaupt* indicating an “abstraction . . . from any condition of sensible intuition as the only one that is possible for us.”⁶⁵ On Kant’s Critical view, by contrast, ontology is a science of pure understanding—a “science . . .

⁶³ A414/B441–42.

⁶⁴ A562/B590, translation amended.

⁶⁵ A247/B303–04.

which consists in a system of all concepts of the understanding [especially the categories], and principles [including the causal principle], but only so far as they refer to objects that can be given to the senses.”⁶⁶ PSR as the causal principle is only a principle of the understanding and so must be limited to the Critical ontology. This limitation at the same time frees up the rendering of PSR as the Supreme Principle, which allows reason to supply the ideas—though not determinate cognitions—of supersensible things to metaphysics proper.

This analysis mirrors Kant’s complaint, mentioned in section 2 above, that the Wolffian metaphysicians mistakenly used ontological principles, which are valid only with respect to sensible objects, to seek synthetic a priori cognitions of the supersensible. His main worry about such a mistaken approach was, to recall, that it would end up undermining metaphysics proper. In particular, it would be self-defeating for the human intellect to seek synthetic cognitions of sensible and supersensible things alike with one and the same PSR. In this regard, it is worth noting that Kant’s discussion of the cosmological argument—of its first part to be precise—belongs in his broader project of tackling the antinomy of pure reason. The antinomy is iterated four times in accordance with exactly four cosmological ideas (of the world qua totality of all appearances), the fourth of which involves the cosmological argument.⁶⁷ In preparation for an eventual resolution of the entire antinomy, Kant draws attention to the various interests of reason at stake.⁶⁸ To pave the way for section 4 below, I shall focus on the speculative (as opposed to practical) interests expressed through the thesis of the antinomy, which represents pure rationalism or “*dogmatism* of pure reason,” and those expressed through the antithesis, which represents “*pure empiricism*.”⁶⁹

Dogmatism, as Kant has defined it earlier in the *Critique*, signifies “the dogmatic procedure of pure reason, *without an antecedent*

⁶⁶ FM 20: 260. See V-Met-L2/Pölitz 28:541–42; V-Met/Mron 29:784–86; V-Met-K₃/Vigil 29:949. For discussion, see Huaping Lu-Adler, “Ontology as Transcendental Philosophy,” in *Kant’s Lectures on Metaphysics: A Critical Guide*, ed. Courtney Fugate (Cambridge: Cambridge University Press, 2018), 53–73.

⁶⁷ A415/B442–43.

⁶⁸ A462–76/B490–504.

⁶⁹ A466/B494.

critique of its own capacity.” Although his critique of pure reason directly counters the italicized part, Kant insists that “science must always be dogmatic, i.e., it must prove its conclusions strictly *a priori* from secure principles” and “thus to the full satisfaction of speculative reason.”⁷⁰ It is this dogmatic interest that gives the thesis of the antinomy its unique appeal: If its assertions are true, “then one can grasp the whole chain of conditions fully *a priori* and comprehend the derivation of the conditioned, starting with the unconditioned.” In this way, the thesis speaks to the “architectonic” character of human reason as a faculty that “by nature . . . considers all cognitions as belonging to a possible system.” This makes “a natural recommendation for the assertions of the thesis.” The antithesis, by contrast, would “render the completion of an edifice of cognitions entirely impossible” by denying there to be “a first or a starting point that would serve absolutely as the foundation for its building.” This gives the antithesis “a bad recommendation.”⁷¹

The antithesis has its own advantages, of course. With empiricism we remain squarely within the field of possible experiences, track down its laws, and by means of these grow our empirical cognitions without any “pretext that this has been brought to an end.” Contrary to how pure rationalism would have it, here we are not allowed “to pass over into the territory of idealizing reason and transcendent concepts, where there is no further need to make observations and to inquire according to the laws of nature, but rather only to *think* and *invent*” in a way that is not susceptible to the testimony of “facts of nature.” Thus, empiricism seems better suited for furthering our understanding of nature. If pure rationalism may lead us to “indulge in ideal explanations of natural appearances, and to neglect the physical investigation of them,” empiricism can serve as “a maxim for moderating our claims.” It strikes down, above all else, “the impertinent curiosity and presumptuousness of those who . . . break off the thread of their physical investigations” so as to extend cognitions with “transcendental ideas.” That said, the empiricism *in praxis* often “makes the same mistake of immodesty” as pure rationalism, when it “becomes dogmatic in regard to the ideas (as

⁷⁰ Bxxxv.

⁷¹ A467/B495, A474–75/B502–03.

frequently happens), and boldly denies whatever lies beyond the sphere of its intuitive cognition.”⁷²

Kant’s abovementioned call to limit the use of the pure concepts and principles of the understanding to the sensible realm was partly meant to counter this dogmatic-empiricist move, so that the contingency of all sensible things (according to the causal principle) can be reconciled with at least the supposition, as dictated by reason on account of the Supreme Principle, of a merely intelligible necessary being. Otherwise, a dogmatic denial of what lies beyond the sensible would cause “an irreparable disadvantage to the practical interests of reason,” the satisfaction of which represents the “final aim” of metaphysics.⁷³ The same denial, as we shall see next, can also cause a great disadvantage to certain speculative interests of reason and thereby threaten to make our physical investigations of nature incoherent: Although *prima facie* it is entirely up to the understanding—with data from sensibility but without borrowing anything directly from reason—to carry out such investigations, reason, thanks to its interest in systematic unity, will turn out to have an indispensable if only architectonic role to play, the execution of which requires the very ideas that the pure empiricist would dismiss on account of universal contingency.

IV

PSR and the Possibility of Physics. When I quoted Leibniz’s cosmological argument in section 3, I left out the context in which he introduced the argument. Here is the omitted opening: “So far we have been speaking simply as *natural scientists*; now we must rise to *metaphysics* and make use of [PSR].”⁷⁴ Although this may give the impression that PSR pertains only to metaphysics, Leibniz in fact thinks that it drives both physical investigations about particular natural phenomena and metaphysical inquiries about nature in general, albeit in different ways and with different aims. On the one hand, if PSR bids

⁷² A469–70/B497–98, A471–72/B499–500.

⁷³ A471/B499, A3/B7. For a short version of Kant’s view on the relation between speculative reason and “an absolutely necessary practical use of pure reason (moral use)” (Bxxv, see also Bxxi–xxii and Bxxiv–xxx).

⁷⁴ Leibniz, *Papers and Letters*, 638–39.

us to seek reasons in the phenomenal world for why particular facts are “so and not otherwise,” this quest for specific physical explanations is a process with no end in sight because “we cannot know these reasons in most cases”;⁷⁵ but we are not thereby licensed to quit the search for those explanations. On the other hand, if PSR leads us to certain metaphysical propositions about nature in general (for example, that monads are the true “elements of things,” as the inner principles of all “natural changes”), these should not be used directly to explain phenomena, even though they are “necessary . . . for philosophizing rightly.”⁷⁶

Such remarks encapsulate Leibniz’s answer to the contentious question about the relation between metaphysics and physics. The answer stands between two extremes, which roughly correspond to what Kant described as pure rationalism and pure empiricism. While the pure empiricist would reject the very notion of an intelligible ground of things as vacuous (because we can never derive it from phenomena), a pure rationalist might not only affirm such a ground but also use it to explain phenomena. Leibniz objects to the latter approach as well as the former. He criticizes “Henry More and other men distinguished for piety and spirit,” for instance, for using the “hylarchic principle [a vital principle meant to account for the possibility of motion], even to explain phenomena; as if there are some things in nature which cannot be explained mechanically.”⁷⁷ On Leibniz’s own account, although we must include things like primitive active and passive forces (akin to the Aristotelian substantial form and prime matter) to account for the possibility of phenomena in general, “we must not use these to explain the particular problems of nature.”⁷⁸

Kant holds a similarly balanced view through a dual limitation of reason and the understanding. “We limit reason,” he states, “so that it does not abandon the thread of the empirical conditions, and stray into *transcendent* grounds of explanation which do not admit of any exhibition *in concreto*.” At the same time, “we limit the law of the merely empirical use of the understanding, so that it does not decide the possibility of things in general.”⁷⁹ Kant’s twofold account of PSR

⁷⁵ Ibid., 646.

⁷⁶ Ibid., 436, 643–44.

⁷⁷ Ibid., 441.

⁷⁸ Ibid., 454.

⁷⁹ A562/B590.

helps to sustain this balance, which manifests itself in the distinct but complementary roles that the causal principle and the Supreme Principle play in physical investigations. To see how, we will have to begin with his distinction between “constitutive” and “regulative” principles of reason.

One of Kant’s aims in the “transcendental dialectic” (as a critique of dialectic illusions) is to decide whether the Supreme Principle has no objective significance, but “is only a logical prescription [*Vorschrift*] in the ascent to ever higher conditions to approach completeness in them and thus to bring the highest possible unity of reason into our cognition.”⁸⁰ Kant answers in the affirmative:

[R]eason relates itself only to the use of the understanding, not indeed insofar as the latter contains the ground of possible experience . . . but rather in order to *prescribe the direction toward a certain unity of which the understanding has no concept*, proceeding to comprehend all the actions of the understanding in respect of every object into an absolute whole.⁸¹

The italicized phrase suggests an important insight: The understanding is unable even to conceptualize the systematic unity of its cognitions, much less to pursue it on its own initiative; rather, only by “a demand of reason” can the understanding be brought “into thoroughgoing connection with itself,” that is, into a system.⁸² In these terms, Kant gives the principle of reason a “corrected significance”: It is neither a “principle of the understanding” for cognizing particular objects of experience, nor a “*constitutive* principle of reason” for extending our cognition in the supersensible realm, but only a “*regulative* principle of reason” for “the greatest possible continuation and extension of experience.”⁸³

While reason issues regulative principles only in regard to the world or nature considered as a whole, they have normative implications for how to conduct physical investigations in nature.⁸⁴ To illustrate, let us return to the ideas of reason involved in the

⁸⁰ A309/B365–66. See A62–64/B87–88.

⁸¹ A326–27/B383, italics added.

⁸² A305/B362. See A475/B503.

⁸³ A509/B537. See A516–17/B544–45.

⁸⁴ A684/B712. For Kant, there is a distinction between “world” and “nature” as concepts of the totality of appearances (A418–19/B446–47). He does not always stick to it, though (see, for example, A684–85/B712–13). I am using the terms interchangeably.

cosmological argument. One idea is that of nature as an infinitely regressing series of appearances, which figures in the first part of the cosmological argument. The minor premise of that first argument asserts the thoroughgoing contingency of the world. By Kant's analysis, this assertion is true only with respect to "empirical contingency": Everything we encounter in the sensible world depends on "empirically determining causes," so much so that we can never encounter an unconditioned cause within this world.⁸⁵ The claim is not about how the world is constituted in itself, in abstraction from the sensible conditions under which things can appear to us. For we can never know whether the world, considered in itself, is actually infinite on the side of conditions. It is just that we, given the inevitable constraints under which we must cognize things in the world (by the causal principle among other principles of the understanding), "have to pursue the conditions of . . . appearances of nature through an investigation that will nowhere be completed, *as if* nature were infinite in itself and without a first or supreme member." In other words, the conception of nature as an infinite series of conditions presents "a *problem* for the understanding, and thus for the subject in initiating and continuing . . . the regress in the series of conditions for a given conditioned." In each step of this regress, it is still up to the understanding to take up what is sensibly given and find the antecedent member in accordance with the causal principle. Only reason, however, can prescribe the overall directional "rule for the way we ought to proceed . . . in the explanation of given appearances," namely, that "we ought to proceed *as if* the series were in itself infinite, i.e. proceed *in indefinitum*."⁸⁶

Meanwhile, physicists explain the phenomena of sensible objects not as mere particulars but as belonging in certain kinds and as causally interacting with one another in accordance with specific laws. They aim to uncover the properties and governing laws of objects as, say, metals, liquids, planets, and so forth, and, insofar as these again fall under the higher genus "body," they want to know whether there is a universal law that applies to all bodily phenomena or whether laws that have successfully explained phenomena of one kind of bodies may apply to other kinds as well. One seeks to find out, for instance, whether Newton's theory of attraction as governed by the inverse-square law,

⁸⁵ A458/B486.

⁸⁶ A672/B700, A508/B536, A685/B713.

which was first established with respect to the phenomena of gravity in the planetary system, also explains other kinds of natural phenomena—light, the cohesion of bodies, all sorts of chemical effects, and so on.⁸⁷ In so doing, one assumes there to be a certain order within nature itself, which allows us to sort things into a system of genera and species and to bring the diverse laws for the various species under a more general law for the shared genus. But whence comes this idea of a systematically ordered nature? After all,

it may certainly be thought that . . . the specific diversity of the empirical laws of nature together with their effects could nevertheless be so great that it would be impossible for our understanding to discover in them an order that we can grasp, to divide its products into genera and species in order to use the principles for the explanation and the understanding of one for the explanation and comprehension of the other as well.⁸⁸

As Kant illustrates this concern in the *Critique*, while formal logic teaches that we can compare given representations so as to subordinate them under higher and higher genus-concepts until the highest genus, this logical rule of genera would not be applicable to nature at all, if “among the appearances offering themselves to us there were such a great variety . . . that even the most acute human understanding, through comparison of one with another, could not detect the least similarity (a case which can at least be thought).” We cannot rule out such a scenario a posteriori. Rather, the applicability of a given logical rule to nature depends on the a priori presupposition that “sameness of kind” in the manifold of appearances is true of nature. This is not an objective cognition of what nature is like in itself. It is, rather, “a legitimate and excellent regulative principle of reason,” which not only licenses but also bids us to seek an order in nature and regard the order “as grounded in nature in general, even though it is underdetermined where or to what extent.” That is, it “points [*vorzeichnen*] the way toward systematic unity,” but “without determining anything.” In this manner, reason “prepares the field for the understanding” with certain a priori presuppositions about nature in general, while leaving it to the

⁸⁷ For a directly relevant overview of such queries, see Du Châtelet, *Institutions*, 315–34.

⁸⁸ Kant, *Critique of the Power of Judgment*, trans. Paul Guyer, ed. Paul Guyer and Eric Matthews (Cambridge: Cambridge University Press, 2000), 5:185.

understanding to find out the specific laws of phenomena and determine their interconnections a posteriori.⁸⁹

Now, the regulative principle of systematic unity, which “reason demands . . . to ground all investigation of nature,” requires as its “schema” an idea of God. It is the idea of God, which emerges from the second part of the cosmological argument, as “the sole and all-sufficient cause of all cosmological series.”⁹⁰ Reason “*must* presuppose such a being,” Kant argues, “in relation to the systematic . . . order of the world’s structure, which we must presuppose when we study nature.” Although we cannot determine any object for the idea of such a being by means of concepts like “cause,” we may nevertheless think of it by analogy with causality and other “properties that could contain the ground for such a systematic unity in accordance with the conditions of our reason.” For “reason cannot think this systematic unity in any other way than by giving its idea an object, . . . so as to regard all the connection[s] of things in the world of sense *as if* they had their ground in this being of reason.”⁹¹ That is, to investigate nature as a totality of appearances ordered and interconnected by a system of empirical laws, we must think

as if [it] had a single supreme and all-sufficient ground outside its range, namely an independent, original, and creative reason, as it were, in relation to which we direct every empirical use of *our* reason in its greatest extension *as if* the objects themselves had arisen from that original image of all reason.⁹²

In this way, “I ground things not on the existence or acquaintance with this being, but only on its idea; thus I really derive nothing from this being, but only from the idea of it, i.e., from the nature of the things in the world in accordance with such an idea.”⁹³

These remarks capture Kant’s balanced view about the relation between physical inquiry and metaphysical reasoning that I mentioned earlier. While the latter alone can supply certain a priori presuppositions that we must make about nature in general while studying its phenomena, Kant warns against ever abandoning “physical

⁸⁹ A653–54/B681–82, A668/B696.

⁹⁰ A699/B727, A685/B713.

⁹¹ A697–98/B725–26, A681/B709.

⁹² A672–73/B700–01. See A676–79/B704–07, A686–87/B714–15.

⁹³ A701/B729.

investigation” to pursue “ideal explanations” of the phenomena.⁹⁴ For such a move “completely ruins and destroys every natural use of reason according to the guidance of experience.” This happens when,

instead of seeking [causes] in the universal laws of the mechanism of matter, we appeal right away to the inscrutable decree of the highest wisdom, and regard the toil of reason as completed when in fact the use of reason has been completely dispensed with—a use which finds its guiding thread nowhere unless it is provided to us by the order of nature and the series of alterations according to their internal and more general laws.⁹⁵

Invoking ideal explanations in the way just described is, as Kant sees it, a case of “lazy reason,” which “makes one regard his investigation into nature . . . as absolutely complete, so that reason can take a rest, as though it had fully accomplished its business.”⁹⁶ Opposed to this is a “method” to “further the cultivation of my reason” through “investigations into the natural causes of natural effects.” In this case, “I must seek out the proximate causes of such effects in nature itself” so that “I may come to know the universal laws according to which everything in the world proceeds.”⁹⁷ And I must do so “according to the principle of effective connection,” namely, by the causal principle. For only “the method and the way of investigating something in *such* a manner is appropriate to philosophy and to human understanding.”⁹⁸

In these terms, we can sum up why Kant would find it important to tease apart the two versions of PSR—the causal principle and the Supreme Principle—and clarify their respective roles in our study of nature. On the one hand, we need the causal principle “to seek for and specify the natural conditions, i.e., causes in appearance, for natural occurrences,” so that the understanding “in its empirical use sees nothing but nature in all events” and pursues “physical explanations . . . unhindered.” On the other hand, the Supreme Principle allows reason rightfully to introduce, among other things, the idea of a necessary being as the self-sufficient ground of nature in general, before identifying this being as God. Only with this idea of God can reason then

⁹⁴ A472/B500.

⁹⁵ A690–91/B718–19. See A773–74/B718–19.

⁹⁶ A689–90/B717–18.

⁹⁷ “Lectures on the Philosophical Doctrine of Religion,” in Immanuel Kant, *Religion and Rational Theology*, ed. Allen Wood and George di Giovanni (Cambridge: Cambridge University Press, 1996), 335–451, at 28:1071.

⁹⁸ V-Met-L2/Pölitiz 28:574. See V-Met/Mron 29:846.

demand systematic unity in our cognitions of nature—not merely from a pragmatic interest in “economy, for saving as much trouble as possible,” but from the idea of a unity that “conforms to nature itself,” wherein all phenomena are truly interconnected through a system of laws.⁹⁹ While specific laws governing the causal connections within nature can be discovered only a posteriori by the understanding through ongoing physical investigations, the presupposition, implicit in such investigations, that all natural phenomena can indeed be brought under a system of more or less general laws is not inferred from experience, but prescribed a priori by reason on account of its essential interest in systematic unity.

V

I have argued that PSR evolved into two principles in Kant’s mature philosophy, the causal principle and the Supreme Principle. I have explicated this development and its philosophical significance from two angles.

The first angle begins with the observation that Leibniz made PSR the pillar of a scientific metaphysics, which raised the question about its own provability. To Kant, the Wolffian metaphysicians failed to prove PSR in a way that would warrant its use as a principle for demonstrating synthetic metaphysical claims about objects. His own quest for a more satisfactory proof eventually led him to specify PSR first as the causal principle and then as the Supreme Principle. This move accords with Kant’s two-part notion of metaphysics, which in turn parallels his Critical distinction between the understanding and reason: The PSR qua causal principle is a principle of the understanding that belongs in the first part of metaphysics or ontology (in the Critical-Kantian sense), which is indeed objectively valid, but only with respect to sensible objects; the PSR qua Supreme Principle is a subjective principle of reason, which helps to introduce ideas of supersensible things for the second part of metaphysics or metaphysics proper, without thereby giving us any objective cognitions. With this bifurcation, Kant could preserve PSR as a core principle of metaphysics, while incisively capturing where and how the Wolffians got it wrong.

⁹⁹ A544–45/B572–73; A653/B681.

The second interpretive angle gets its cue from Leibniz's view on the use of PSR in physics as well as in metaphysics, which can be seen as a nuanced answer to the broader question about the relation between physical and metaphysical queries about nature. In Kant's twofold specification of PSR, I argued, we can see a similarly nuanced take on that issue. Roughly speaking, there is a distinction between physical explanations of particular phenomena and a metaphysical account of nature in general. Kant shares the basic Leibnizian insight that the latter, while needed in order to ground physical inquiries as a whole, should not be invoked directly to explain phenomena. If Leibniz suggested that PSR must be applied differently in physics and metaphysics, Kant brought the difference into sharper focus by turning PSR into two separate principles and assigning them distinct roles in our study of nature. The Supreme Principle allows reason to obtain the ideas it needs in order to conceive nature itself as containing a certain lawful order, a conception that underlies the modern practice of physics. Meanwhile, it must be left to the understanding to seek explanations of particular phenomena in accordance with the causal principle.

So, Della Rocca was wrong to claim that Kant rejected PSR as "simply false." I suggested earlier that Della Rocca's misreading may be a main reason why Kant has been largely ignored in the recent scholarship on PSR. I hope that my exposition has at least made Kant's account of PSR something to contend with for anyone who is interested in reaffirming this principle and using it to prop up a metaphysics. Although by "metaphysics" today's scholars likely mean something quite different from Kant (or from Leibniz for that matter), we can still learn pertinent lessons from considering the challenge he saw—and tried to tackle—of identifying and proving the right version of PSR for the role it was billed to play by the metaphysicians. In this spirit, let me conclude by briefly turning to the work of Fatema Amijee, who, along with Della Rocca and others, has been a leading voice in the revival of a PSR-based metaphysics.

Amijee distinguishes "metaphysical inquiry" and "causal (or scientific) inquiry": The former addresses questions of the form "What makes it the case that p?" whereas the latter tackles questions like "Why did the bridge collapse?" Reaching for historical sources of this distinction, Amijee cites Leibniz's claim, which I quoted as part of his

cosmological argument, that “we must rise [from speaking simply as *natural scientists*] to *metaphysics* and make use of” PSR. From there, Amijee proceeds to argue for PSR roughly as follows: “[P]articipating in metaphysical inquiry—the practice of seeking metaphysical explanations—commits one to the PSR, not merely as a regulative principle (i.e. as a condition for intelligibility or a principle that merely guides inquiry), but as a principle that tells us how the world is structured”; “we [as rational] ought to participate in metaphysical inquiry”; therefore, “we ought to be committed to the PSR [that everything has an explanation]” or, more specifically, to the version according to which every fact has a metaphysical explanation. This argument, Amijee adds, is for the claim that “we ought to be committed to the PSR,” but not that “the PSR is true.”¹⁰⁰

There is room for conversation between this neorationalist appropriation of Leibniz’s PSR and Kant’s rendering thereof in the *Critique*. Needless to say, it would be unfair simply to assume the framework of Kant’s Critical philosophy. Still, it is worth remembering that his Critical account of PSR was a considered response to the main challenge facing the kind of rationalist metaphysics that scholars like Amijee have been trying to revive, namely, the challenge of proving PSR in a way that would warrant its role in supporting metaphysical claims. This challenge now manifests itself in a tension at the center of Amijee’s work: If PSR is, according to Amijee, a matter of subjective commitment (as essential to our rationality) but may not be true about the world, how can we expect it to tell us anything about how the world is structured?

A Kantian move for tackling this kind of tension is, if not to be accepted at face value, at least worth considering. Given what I have shown in this paper, the move goes roughly as follows. On the one hand, if there is a merely subjective version of PSR to be derived from the very notion of human rationality, it takes the form of the Supreme Principle. If this PSR commits us to a metaphysical inquiry about the world, we can thereby at best get a metaphysics that, to borrow Kant’s terms elsewhere, may only be “used methodically” in our study of nature—namely, used “only for the purpose of guiding” and “indirectly enlarg[ing]” such study—without giving us any knowledge of how the

¹⁰⁰ Amijee, “Reason Unbound,” 5–8.

world is structured in itself, objectively speaking.¹⁰¹ On the other hand, the PSR that can serve as a principle for learning about how the world is—for example, about the most general laws to explain a whole range of natural phenomena—cannot be just a subjective commitment of human reason. Rather, it must be proven as an objective principle.

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¹⁰¹ “Metaphysical Foundations of Natural Science,” in Kant, *Theoretical Philosophy after 1781*, 181–270, at 4:524, 534.