Kant on Modality

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Abstract:
This chapter analyzes several key themes in Kant's views about modality. We begin with the pre-critical *Only Possible Argument in Support of a Demonstration of the Existence of God* , in which Kant distinguishes between formal and material elements of possibility, claims that all possibility requires an actual ground, and argues for the existence of a single necessary being. We then briefly consider how Kant's views change in his mature period, especially concerning the role of form and thought in defining modality. Kant's mature views, however, present two difficult interpretive puzzles. The first puzzle concerns whether Kant has a generally reductive view of modality. While Kant's views on logical modality, the role of actuality in grounding possibility, and the relation of modality to cognition all suggest reduction, we argue that the categorial status of modal concepts and the difficulty in even identifying amodal grounds for modal facts all suggest a non-reductive view. The second puzzle concerns whether Kant accepts modal facts or properties at the noumenal level. While Kant's appeal to noumenal necessary connections, the contingency of noumenal willing, and the idea of a necessary noumenal being suggest that he endorses noumenal modality, his claims that modal concepts express only relations to the faculty of cognition and his claim that modal concepts arise from our distinctive psychological structures, we argue, suggest that he rejects noumenal modality. We conclude by considering potential solutions to these puzzles.

Keywords: Kant, modality, form, matter, reduction, noumena

Modality permeates Kant's mature philosophy, from the necessary unity of apperception (e.g., B142) to the possibility of God and immortality (e.g., CPrR 5:4). In addition, Kant's philosophical development hinged at least partly on modal considerations. One recent commentator has claimed that a shift in Kant's conception of modality 'is constitutive of the critical turn'.[1] Kant not only invokes modal notions throughout his career, he also directly theorizes about the nature of modality. Appropriately, then, in recent decades commentators have become increasingly interested in Kant's views on modality.

In this chapter, we critically analyze several modal themes in Kant's philosophy. To keep our discussion manageable, we restrict our attention to themes in his theoretical philosophy, noting some connections to his practical philosophy. We begin with Kant's most important pre-Critical work on modality: the 1763 *Only Possible Argument in Support of a Demonstration of the Existence of God* (OPG). Turning to Kant's mature views, we then consider his core

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[1] Abaci 2019: 2.

distinction between logical and real possibility, and then present two interpretive puzzles. The first puzzle concerns whether Kant's mature views of modality are reductive, while the second concerns whether Kant took there to be modal facts or properties concerning mind-independent entities (i.e., noumena). Though some recent scholarship on Kant touches on these puzzles, we believe that both deserve further attention from both interpreters and contemporary philosophers interested in modality.

1. Pre-Critical Views in the OPG

In the OPG, published almost 20 years before the *Critique of Pure Reason*, Kant rejects traditional ontological arguments for the existence of God and offers what he sees as the only viable proof. Kant's proof revolves around modal considerations, making the OPG the natural focal point for understanding Kant's pre-Critical modal views.

In this section, we consider two central aspects of Kant's modal views in the OPG: his distinction between formal and material elements of possibility and his principle that 'all possibility is given in something actual' (OPG 2:79).[2] With those aspects in mind, we briefly consider his favored argument for the existence of God. Our primary aim here is to show that, even early in his career, Kant (1) approached modality through the framework of representation, (2) distinguished different types of modality in hylomorphic terms, and (3) was concerned with the grounds for modal facts and properties.

1.1. Formal and Material Elements of Possibility

Many of Kant's rationalist predecessors understood possibility and necessity in broadly logical terms, that is, by reference to the logical consistency or inconsistency of certain representations. According to Christian Wolff, for example, something is possible just in case its concept contains no contradictions, and is necessary just in case its opposite is contradictory.[3]

In the OPG, Kant follows his predecessors in defining modal notions by reference to representations, probably in connection with his assumption that 'everything possible is

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[2] Perhaps Kant's most famous claim in the OPG is that 'Existence is not a predicate or a determination of a thing' (OPG 2:72), a claim that he continues to advance in his mature critique of rational theology (see A598-99/B626-27). Though this issue is undoubtedly relevant to Kant's theory of modality, our discussion will largely bracket it. For one useful recent discussion, see Bader 2018.

[3] See Stang 2016: 14-21, who reformulates this in terms of the possibility or necessity of a concept being instantiated. For an alternative reading of Wolff, see Abaci 2019: 59-74.

something which can be thought' (OPG 2:78).[4] Unlike his predecessors, however, Kant claims that a lack of contradiction is only one element or aspect of possibility. In addition to that logical element, Kant claims that possibility also involves a or 'real' element, whereby something is 'given which can be thought [*kann gedacht werden*]' (OPG 2:78). Tellingly, Kant also gives this distinction in hylomorphic terms, also describing the logical element as 'formal' and the real element as 'material' (OPG 2:78-79).[5] According to traditional hylomorphic metaphysics, form requires matter, so Kant's use of the hylomorphic framework is arguably meant to signal that the logical element of possibility (the form) requires some distinct, real element (the matter). It is important for our later discussion to note that, at this point in his philosophical development, the only formal aspect of modality Kant recognizes is logical form.

Based on this general approach to possibility, Kant offers a corresponding, disjunctive definition of 'absolute necessity,' whereby something is absolutely necessary 'either when the formal element of all that can be thought [*alles Denklichen*] is cancelled by means of its opposite, that is to say, when [that opposite] is self-contradictory; or... when its non-existence eliminates the material element and all the data of all that can be thought [*allem Denklichen*]' (OPG 2:82). Kant states that this is a 'real definition' (OPG 2:81), which suggests that it is meant to capture the nature of absolute necessity. As with his definitions of possibility, a reference to thought is included in the definition.

From a contemporary perspective, these modal definitions are surprising in at least three ways. First, though Kant appears to be defining basic modal notions, all his definitions include modal language (e.g., '*can* be thought'). Second, given Kant's definition of absolute necessity, establishing that some being is absolute necessity requires assessing a counter-possible proposition, that is, considering whether anything would be thinkable if, *per impossibile*, that being did not exist. Third, the reference to thought in the definitions seems to imply that the very notion of a possible but unthinkable thing is self-contradictory.

Kant's chief concern in the OPG, however, is with using the framework of the logical and real elements of possibility to establish the existence of an absolutely necessary being. His key to doing that is the principle we consider next.

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[4] This assumption may also explain why Kant (frustratingly) slides between representational and metaphysical uses of his terms. For example, he uses 'predicate' ('*Prädicate*') to refer to both concepts and properties that concepts represent (see, e.g., OPG 2:72). He also states that existence is 'the absolute positing of a thing', where positing is 'the copula in a judgment' (OPG 2:73); the idea presumably being that we *represent* existence through the copula in a judgment (though see Calhoun 2019).
[5] The term 'element' is added by the translators (Walford and Meerbote) for readability - Kant himself talks only of '*das Formale*' and '*das Materiale*'.

According to what recent commentators have dubbed Kant's 'Actualist Principle', 'all possibility is given in something actual, either as a determination existing within it or as a consequence arising from it' (OPG 2:79). This principle uses the same language of things being 'given' ('*gegeben*') as does the definition of the material element of possibility.

Crucially, the Actualist Principle does not imply that every possible thing is actual - this is why Kant gives it a disjunctive form. To take one of Kant's examples: a fiery body would be possible even if no fiery bodies existed. Yet, according to the Principle, there must be something in virtue of which 'fiery' and 'body' are not 'empty words' (OPG 2:80-81), that is, something in virtue of which these predicates can be given to thought. Hence, Kant claims, someone who takes a fiery body to be possible must 'give… an account of what entitles [them] so readily to accept [e.g.] the concept of extension as a datum' (OPG 2:80).

Kant's commitment to the Actualist Principle demonstrates his interest in finding explanations or grounds for the possible - an interest he shares with many other 18th century philosophers.[6] From a contemporary perspective, however, the Principle is not obviously true. Why could there not be *brute possibilities*, that is, possible properties that have no footing in the actual?[7] For Kant, however, the principle seems undeniable, and he gives it a key role in his argument for the existence of God.

1.3. Kant's Argument for God's Existence

Kant's argument for God's existence in the OPG can be divided into three stages. First, Kant argues that, as a matter of absolute necessity, 'one or more things' exist (OPG 2:83). This stage of the argument relies on the Actualist Principle and the definition of absolute necessity. Second, Kant argues that there is a *single*, absolutely necessary being, as the ground of all possibility. Third, Kant argues that this being is God, since it is simple, immutable, supreme, and intelligent (OPG 2:84-89).

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[6] See, e.g., §44 of Leibniz's *Monadology* (Leibniz 1989 [1714]: 218).
[7] See, e.g., Wood 1978: 68 on possibilities in empty worlds. Various defenses of the Principle have been offered in the recent literature. Chignell (2009) and Boehm (2012; 2014) have argued that the Actualist Principle is derived from the PSR, while Allen Wood (1978) and Giovanni Sala (1990) interpret the Actualist Principle as merely a necessary condition for *thinking* about possibility. Josef Schmucker (1980) and Martin Schönfeld (2000) defend an ontological interpretation of the Actualist Principle as a condition for real possibility. Nicholas Stang (2010) once defended a causal powers interpretation of the principle, but has since rejected this reading (Stang 2016: 144-46).

Contemporary commentators have found Kant's argument philosophically rich, but problematic. The second stage in particular has drawn critical attention, in part because it highlights important questions about Kant's theory of modality. Even if we grant the Actualist Principle, and so grant that all possibility requires some or other actual being as a ground, why must we grant that there is a *single* such being?

Kant's own stated argument on this point (OPG 2:83-84) is not particularly convincing. According to an influential proposal by Andrew Chignell, however, a more promising argument for the singularity claim can be made using Kant's notions of real compatibility vs. repugnance (e.g., OPG 2:86).[8] Real compatibility is a relation between properties that requires more than mere logical compatibility. For example, the representations of being extended and having thought are logically compatible but, Kant thinks (OPG 2:85), nothing could possibly have both properties - despite their logical compatibility, they are really repugnant with each other. On the other hand, many logically compatible properties (e.g., having thoughts and having feelings) are not so repugnant, and so are really compatible. Chignell suggests that, in Kant's view, there must be some unified ground for these non-logical modal relations between properties, which can only be a single, necessary being. This would then preclude there being multiple beings that separately ground the possibility of different predicates.

Chignell's reconstruction forcefully raises the question of what the basis is for the real compatibility of predicates - a question not addressed by many modal metaphysicians, but one that Kant at least should have considered.[9] We will note that one issue we find intriguing is whether Kant's OPG argument, on any reconstruction, provides any reason for thinking that there are facts about the real compatibility and incompatibility of *all* predicates. For all Kant says, reality might be modally fragmented into different domains of predicates. Within each domain, a single being might ground facts about the real harmony of that domain's predicates, but there might be no facts (and so no need for a grounding being) about the compatibility of predicates between domains. Perhaps such a scenario would be too outlandish for 18th century readers to worry about, but Kant's argumentative aims would seem to require that he rule it out.

Setting aside worries about the validity of Kant's argument, two key questions are which aspect of God Kant thinks grounds real possibility, and whether that aspect itself has modal features. The latter question is important to two puzzles we consider below: whether Kant (in his

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[8] See Chignell 2012: 655-57.

[9] Chignell does not think Kant himself offered this argument in OPG, and worries that this line of thought can lead to Spinozist conclusions that Kant would reject. See Chignell 2012: 663-68. Omri Boehm (2012) suggests that Kant is committed to Spinozism in a regulative form. For resistance to Chignell's proposal, see Yong 2014, Abaci 2014, Hoffer 2016, Oberst 2020.

mature views) aims to reduce modality in some sense, and whether he takes mind-independent beings such as God to have modal features. Chignell suggests that God's instantiation or exemplification of various non-intentional properties would ground real possibility - which would appear to be a basis without modal features.[10] Other commentators have suggested that the basis of real possibility in OPG is God's powers, God's thoughts, or something we humans cannot comprehend.[11] The notion of a power would seem to be itself modal,[12] while matters are less clear with God's thought or an appeal to the incomprehensible (see §3 below for more discussion). Of course, Kant may simply have not thought through the matter at this point in his career, but if not, we might expect him to have considered it by the time of the *Critique*.

2. Shift in Kant's Views of Logical and Real Modality

By all accounts, Kant's philosophical views shifted significantly between the 1760's and the 1781 publication of the *Critique of Pure Reason*. However, many of the core themes from the OPG reappear in the *Critique*. Chief among these are the distinction between logical and real possibility and the idea of God as the ground of possibility. The latter is recast as an idea inevitably reached by reason that plays a crucial regulative role in our investigations of nature, despite no longer qualifying as a proof of God's existence.[13]

Yet while the argument for God's existence becomes less central in Kant's mature views, the distinction between logical and real possibility becomes more central. For the *Critique* revolves around one type of representation in particular, cognition (*Erkenntnis*), and Kant states that '[t]o cognize an object, it is required that I be able to prove its… real possibility' (Bxxvin.). Understanding Kant's core epistemological doctrines in the *Critique* therefore would seem to require understanding his mature notion of real possibility.[14]

In this section, we briefly examine how Kant's core understanding of the distinction between logical and real modality develops from the OPG to the *Critique*. We will not attempt to summarize the rich discussions of modality in the *Critique*, though we will touch on several of those discussions in the following section.

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[10] Chignell 2012: 641.
[11] See, respectively, Stang 2010, Hoffer 2016, and Stang 2016. For other approaches, see Yong 2017 and Abaci 2019.
[12] See Chignell 2017. Note that one can hold that a powers are irreducibly modal without holding that powers reduce to modal properties.
[13] See A571-82/B599-611 and, for discussion, Stang 2016: 288-96 and Abaci 2019: 208-48. For a dissenting view, see Oberst 2020.
[14] See Chignell 2014.

Kant's mature distinction between logical and real modality is perhaps best introduced by means of examples. Fortunately, Kant's Critical writings include several examples of things that are logically possible but not really possible. These include a figure contained within two straight lines (A220-21/B268), a being that includes realities that are really but not logically incompatible (A274-73/B329-30), and matter that has attractive force but no repulsive force (MFNS 4:510-11). In his mature works, Kant spells out logical possibility in a similar manner as in OPG: something is logically possible just in case its representation lacks any contradiction. Kant's understanding of real possibility, however, has changed significantly from the OPG.

In the OPG, real possibility was defined (a) in terms of the matter of thought and (b) in sharp contrast to the formal aspect of modality, which Kant then just identified with the logical (OPG 2:77-78). In the *Critique*, Kant's approach to real possibility changes on both fronts. On (a): Kant often gives general characterizations of real possibility that make no reference to thought. For example, he explains real possibility in terms of "whether or not there is a corresponding object somewhere within the sum total of all possibilities" (Bxxvin.) and as "the possibility of *things*," in contrast to thoughts (A244/B302). Hence, Kant now introduces real possibility as something resembling what contemporary metaphysicians call 'metaphysical possibility'. On (b): despite sometimes generalizing the notion of real possibility away from any reference to thought, Kant nevertheless goes on to argue that real possibility is (at least in part) defined in terms of forms, where the relevant forms are forms of representation. For example, at A218/B265, Kant characterizes at least one kind of real possibility as agreement 'with the formal conditions of experience (in accordance with intuition and concepts)' (see also ML_2 28:557).[15] Hence, Kant no longer defines real possibility in contrast to the formal.

These changes reflect two developments in Kant's larger views. First, the *Critique* argues for a version of idealism, that is, for the view that objects of experience somehow essentially relate to the mental.[16] Hence, to avoid begging the question, Kant must begin with characterizations of objects and properties that are neutral on their relation to the mind. This may explain the lack of reference to thought in Kant's general characterizations of real possibility such as Bxxvin. and A244/B302. Kant does connect real possibility to thought (e.g., at A218/B265), but these connections appear to be synthetic, not analytic or definitional. By contrast, Kant's views in OPG are not idealist, and the pre-Critical Kant seemed to see no

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[15] Note that Stang uses 'formal possibility' to describe one species of real possibility: compatibility with space and time and the categories (2016: 203).
[16] What this relation is for Kant remains controversial. See Tobias Rosefeldt's contribution to this volume for details.

idealistic implications in defining real possibility (and other notions, like that of positing) by reference to thought.

The second development is a much-expanded theory of the formal. In OPG, Kant's only explicit notion of form is logical form, as governed by the principle of contradiction - hence his identification of the logical with the formal. By contrast, in the *Critique*, Kant commits himself to a range of other formal elements, including space and time as the forms of intuition, the categories, and the unity of apperception as the form of all experience (see, e.g., A89/B121, A79-80/B105-06, A117n., B140). Hence, Kant can now argue that real possibility concerns forms of representation while still maintaining its distinctness from logical possibility.

Since the mature Kant ties real possibility to forms of representation, it might be tempting to think that an object's being really possible, on his mature views, is nothing other than its being compatible with all the forms of experience.[17] There are grounds, however, for thinking that Kant in fact operates with several distinct notions of real possibility in the *Critique*.[18] For reasons of space, however, we set that issue aside, and turn instead to two philosophically-rich interpretive puzzles that arise given just Kant's general distinction between logical and real modality.

3. The Reduction Puzzle

One sense in which a theory of modality can be *generally reductive* is if it takes all facts about possibility and necessity to reduce to facts that are about neither possibility nor necessity. Reduction, in turn, can be understood in at least three distinct ways: as grounding (where some facts hold in virtue of other facts), as analysis (where some concept can be analyzed in terms of some other concepts), or in terms of identities (where some facts or properties are identified with what might have seemed to be different facts or properties).[19] For example, Leibniz claimed that a proposition's being necessary can be analyzed as: there is a finite analysis that resolves that proposition to an identity (e.g. 'what is (A and B) is B'), while a proposition's possibility can be analyzed as: there is no finite reduction of the proposition to an identity or a contradiction.[20]

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[17] For a relevant discussion, see Leech 2017.

[18] Stang distinguishes four types of real possibility (2016: 203-25), granting that Kant himself makes none of these distinctions explicitly. We find Stang's argument generally convincing, but think more could be said about why Kant does not make the distinctions himself.

[19] See Rosen 2010 on grounding and reduction. Note that both analysis and identity reductions formulations are sometimes expressed with biconditionals.

[20] See Leibniz 1989 [1689]: 96. Note that Leibniz' claim concerns contingency, but for our purposes, this is close enough to possibility. Leibniz does not explicitly state that these claims about modality are

More recently, David Lewis identified something's being possible with it holding in some world, and something's being necessary with it holding in all worlds - where Lewis took there to be a plurality of concrete but spatiotemporally and causally isolated worlds.[21]

Are Kant's views about modality generally reductive, that is, does he hold that *all* facts about necessity and possibility reduce to other facts? In this section, we describe an interpretive puzzle about Kant's mature views of modality, which we call the 'Reduction Puzzle'. The puzzle is that there are reasons for accepting and for denying that Kant's theory of modality is generally reductive. After describing some of these reasons, we consider how reductive and non-reductive readings might be pursued.

Four preliminary notes. First, to simplify the discussion, we discuss reduction in terms of grounding and 'in virtue of' relations below, but most (though not all) of the key points could also be formulated using other understandings of reduction, that is, in terms of analyses or identity relations. Second, a theory of modality can be *partly* reductive if it takes only some modal facts to be reducible. While it may be tempting to assume up front that we can resolve the puzzle by attributing a partially reductive theory to Kant, the Reduction Puzzle presents challenges to partially reductive readings as well. Third, the puzzle we consider is about whether Kant himself offered a reductive theory, not whether he was merely open to modality being reducible (e.g., reducible in ways we cannot understand). Fourth, despite some overlap in their textual bases, the Reduction Puzzle is logically independent of the puzzle we consider in Section 4 below, namely, whether there are noumenal modal facts or properties. That said, further assumptions could link the two. For example, if Kant believed that all modal facts were phenomenal and that all phenomenal facts were grounded by noumenal facts, then he would be committed to a generally reductive theory of modality.

3.1. Reasons for taking Kant's theory to be reductive

There are at least three grounds for taking Kant's mature theory of modality to be reductive: (1) his claims about the basis of logical modality, (2) his apparent commitment to the Actualist Principle, and (3) his descriptions of modal concepts in terms of the faculty of cognition.

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analytic, though his theory of truth as the containment of the predicate by the subject seems to commit himself to it.

[21] Lewis 1986. Note that Lewis predominantly puts his claims in terms of biconditionals, not identity, so other readings of Lewis are possible. For a general discussion of prospects for reductive theories of modality, see Sider 2003.

Logical modality. Some passages suggest that Kant's theory of logical modality is reductive. The simplest reductive reading takes a subject-predicate judgment to be logically necessary in virtue of the subject concept containing the predicate concept, and logically possible in virtue of the subject concept not containing the negation of the predicate concept (see, e.g., *Prol.* 4:267). However, Kant sometimes glosses logical modality in terms of *possible* representations - e.g., in glossing logical possibility in terms of whether a concept is 'a possible thought' (Bxxvin., see also A596/B624n.). That appeal to possibility might seem to preclude a generally reductive reading, since it appears to invoke possibility again in the definition of logical possibility. However, Kant plausibly takes the possibility of a concept or thought to be based in the principle of contradiction - hence his claim that 'I can think whatever I like, as long as I do not contradict myself' (Bxxvin.). Since Kant formulates the principle of contradiction in non-modal terms,[22] a reductive reading of at least his theory of logical modality is tempting.

How would this conclusion bear on non-logical modality? If Kant's theory of logical modality were reductive, that might itself provide reason to take his larger theory of modality to be reductive as well. For if logical and real modality are different members of a single genus, then we have a (defeasible) reason for inferring that real modality shares features with logical modality (cf. KU 5:464n.). By analogy: consider the genus of phenomenal states. Many contemporaries theories of the mind agree that either all species of that genus are fully reducible to something non-mental, or else that *no* species of that genus are fully reducible. It is hard to evaluate how strong this defeasible reason would be, but given Kant's general tendency towards systematic consistency, this point would encourage a generally reductive reading - at least, if logical and real modality do belong to a single genus.

Actualist Principle. As in the OPG, the mature Kant seems to endorse the principle that possibilities are grounded in the actual (see, e.g., A222, A575/B603, PR 28:1036).[23] This principle can be read as a reductive claim: that all possibilities hold in virtue of actualities. Moreover, if necessities can be analyzed in terms of possibilities (e.g., 'necessary' = 'not possibly not'), then this reductive claim would likewise capture necessities. To be sure, there are difficult questions about whether Kant ultimately identifies something non-modal as the ground of possibilities (a question we return to below), and about how to understand Kant's notion of grounding in contemporary terms, especially in relation to reduction.[24] Nevertheless, Kant's

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[22] E.g., 'no predicate pertains to a thing that contradicts it' (A151/B190).
[23] Abaci 2019: 138, 194-97 argues that, in his critical works, Kant accepts the principle in a merely subjective, epistemological sense.
[24] See, e.g., Stang 2016: 207-209 and Watkins 2019.

Actualist Principle seems about as clear a statement of a generally reductive modal thesis as we could expect from an 18th century philosopher.

   Relation to cognition. In Kant's most extended discussion of modality in the *Critique*, the Postulates of Empirical Thinking, he writes that '[t]he categories of modality have this peculiarity: as a determination of the object they… express only [*nur… ausdrücken*] the relation to the faculty of cognition' (A219/B266). This claim is naturally read as saying that the correct applications of modal categories hold solely in virtue of facts about cognition.[25] Stang has offered analyses of different kinds of real modality in terms of grounding relations between propositions and facts about cognitive faculties.[26] In a somewhat different vein, Jessica Leech defends a reading of Kant's modal functions of judgment in terms of the place of a judgment in a subject's syllogistic reasoning.[27] Neither Stang nor Leech claim that their analyses are meant to be generally reductive, but their arguments could be adopted in service of a generally reductive reading.

3.2. Reasons for taking Kant's theory to be non-reductive

   We think the above considerations give good reasons to take Kant's theory of modality to be generally reductive. However, the Reduction Puzzle arises because there are also at least two reasons for thinking that Kant's theory is *not* generally reductive: (1) his positing of all three modal categories as elementary, (2) his positing of apparently modal elements in the candidate bases for a reductive theory of real modality.

   Categorial status of modal notions. Kant claims that the categories are 'the elementary concepts of the understanding' (B109-110). Part of what makes a concept elementary, presumably, is that it cannot be reduced to other concepts. For example, within the categories of relation, Kant claims that <substance>, <causation>, and <community> are elementary concepts, and nowhere does Kant seem open to any sort of general reduction of one to the other, or to anything else.[28] Yet Kant claims that <possibility>, <existence>, and

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[25] On 'express' ('*ausdrücken*'), cf. A216/B263 and KU 5:320.

[26] Stang 2016: Ch.7.

[27] Leech 2010. See also Evans, Sergot, and Stephenson (2019), which offers an interpretation of the modal functions of judgment in terms of permissives and imperatives (indicating what rules a subject may, may not, or must adopt). Whether this approach supports a reductive reading depends on whether such permissives and imperatives require irreducibly modal assumptions.

[28] He does claim that they 'arise' ('*entspringen*') from the functions of judgment (A79/B105; see Longuenesse 2005: Ch. 4.). But the (non-analytic) 'arising' relation does not imply reduction in any straightforward sense.

<necessity> are all categories, which suggests that there is no general reduction of one to another, or to anything else.[29]

      Modality in candidate grounds. A generally reductive reading of Kant's theory of modality must identify non-modal grounds for all modal facts, including facts about real modality.[30] Stang's and Leech's analyses, mentioned earlier, suggest these grounds would include our forms of intuition, the unity of apperception, and inferential relations between judgments. However, Kant's characterizations of these aspects of the mind appear to be themselves inescapably modal. The forms of intuition are the forms of sensibility, which Kant defines as the '*capacity…* to acquire representations through the way in which we are affected by objects' (A19/B33, our emphasis), and are part of our general *power* of representation (*Vorstellungskraft*) (see A34/B51). The notions of a capacity, of a power, and of affection all seem to be essentially causal, however,[31] and Kant states that 'the very concept of a cause… obviously contains the concept of a *necessity* of connection with an effect' (B5, our emphasis).[32] Apperception is attributed to the understanding, which is also a capacity. In addition, Kant emphasizes the necessity of the unity of apperception in both editions of the Transcendental Deduction (e.g., A106-8, B142). Finally, in characterizing the modal functions of judgment, Kant uses modal terms as well, saying that a problematic judgments (such as the antecedent of a conditional), 'expresses logical possibility,' while an apodictic judgment (such as the inference to the conclusion of a syllogism) 'expresses logical necessity' (A75-6/B101).[33] Altogether, these passages make it difficult to read Kant as trying to offer a generally reductive theory of modality.

3.3. Solutions to the Reduction Puzzle

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[29] Strictly speaking, what he claims has categorial status are pairs (e.g., <possibility> / <impossibility> and <necessity> / <contingency>), but that does not affect the present point. Kant does claim that the third category pair in each group arises from the other two in a special way (see B110-11), but holds that this requires a 'special act of synthesis'. Regardless, <possibility> / <impossibility> and <existence> / <non-existence> are the first two category pairs, and Kant never suggests that the former category arises from the latter.

[30] Cf. Sider 2003: 185.

[31] See, e.g., A648/B676. In Metaphysics L$_2$, moreover, Kant attributes even more modal content into the notion of a faculty: 'Faculty and power and different. With a faculty we imagine only the *possibility* of power' (28:565, our emphasis).

[32] Kant also suggests there are facts about the real possibility of capacities. E.g.,: "all human insight is at an end as soon as we have arrived at basic powers or basic faculties; for there is nothing through which their *possibility* can be conceived, and yet it may not be invented and assumed at one's discretion" (CPrR 5:46-7, our emphasis).

[33] One might think that this just shows a reduction of the modal functions of judgment to something to do with logical modality (which might in turn reduce to something non-modal). However, one of Kant's core commitments is that all modality is *not* ultimately logical, so such a reading would be implausible.

In response to the Reduction Puzzle, one could simply conclude that Kant's views of modality are inconsistent, that is, that he attempts to reduce modality and yet cannot avoid invoking it. To conclude this section, however, we offer some suggestions of how reductive and non-reductive readings might be developed.

Non-reductive readings. In response to the considerations from Section 3.1, a defender of a non-generally-reductive reading could claim that logical modality is reducible, but only as far as real modality. The principle of contradiction might be the basis for logical necessity, but if it is, as Kant sometimes claims,[34] a necessary law of a capacity, and capacities are irreducibly modal, then Kant's view is not generally reductive. More specifically, if logical modality is ultimately about what can be thought, and there is no further explanation about what *can* be thought, then Kant's theory is not generally reductive. With respect to the Actuality Principle, one could read Kant as saying that facts about possibility are partially grounded by facts about actuality without being wholly reducible to them. Finally, Kant's claim that the modal categories express relations to the faculty of cognition could be read as merely describing the roles that modal concepts play, without implying that modality itself is analyzable or otherwise reducible.

Reductive readings. Defending a generally reductive reading of Kant is a demanding task, and will ultimately turn on the textual and philosophical plausibility of the particular reductions it offers.[35] With respect to the factors mentioned in Section 3.2, however, we suggest that defenders of reductive readings should grant that Kant believes that modal *representations* are irreducible or humanly ineliminable in some sense, while working to show that modal *properties* and *facts* are generally reducible. On such an approach, we might expect modal language to be inescapable, even when used to describe the amodal grounds of modal facts. We will explore the prospects for this kind of approach further in the next section, where we turn to our second interpretive puzzle.

4. The Noumenal Modality Puzzle

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[34] See Lu-Adler 2018: 153-54.

[35] Stang, for example, shows how the necessity of the unity of apperception might be understood (with an eye towards OPG) in terms of how it grounds possibilities (2016: 275-76). Though Stang does not endorse a generally reductive reading, this illustrates the sort of effort needed for a full defense of a reductive reading. In recent correspondence, Stang stated that he thinks reducing moral facts to hylomorphic ones may be the best prospect for a generally reductive reading.

The noumenal realm, for Kant, is the realm of facts or entities that are independent of our experience (see B306-9).[36] While Kant is committed to the truth of some modal judgments within experience, his commitments concerning modality in the noumenal realm are far from clear, whether this in put in terms of facts (e.g., the fact that our noumenal will could have been different) or properties (e.g., our noumenal will's property of being possibly different). Some recent scholarship on Kant's views on modality revolves around what we call the *Noumenal Modality Puzzle*. The puzzle is that Kant sometimes appears to commit himself to noumenal modal facts and properties, while elsewhere appearing to rule out even their intelligibility.[37] In this section, we lay out some of the textual basis for the Noumenal Modality Puzzle and survey some possible solutions. While some of this textual basis appeared in our discussion of the Reduction Puzzle, these puzzles concern logically distinct issues. That said, what resolution one adopts to one puzzle is likely to inform what resolution one adopts to the other.

The Noumenal Modality Puzzle, we believe, may not have arisen because of mere carelessness on Kant's part. Instead, it may reflect Kant's appreciation of competing but independently attractive intuitions about modality itself. If so, then the Noumenal Modality Puzzle presents a challenge not only for Kant's interpreters, but also for contemporary philosophers of modality.

4.1. Kant's apparent commitment to noumenal modality

Kant appears to commit himself to noumenal modality on at least three distinct fronts: (1) necessary connections in noumenal causation, (2) contingency in noumenal free will, (3) and God's either being impossible or necessary. The first side of the Noumenal Modality Puzzle holds if Kant has any of these commitments.

Noumenal necessary connections. Kant holds that it is analytically true that causal relations are necessary. In the first *Critique* he writes that 'the very concept of a cause so obviously contains the concept of a necessity of connection with an effect... that it would be entirely lost if one sought, as Hume did, to derive it from a frequent association' (B5). Hence, if there are noumenal causes, then some noumena stand in necessary connections. Yet Kant

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[36] This is the negative sense of 'noumenon', which Kant at least sometimes identifies with the notion of a thing in itself (B309-10). Some commentators further distinguish noumena in the negative sense from things in themselves, but we set this issue aside.

[37] Our Noumenal Modality Puzzle is, to a large extent, an expansion of Stang's 'Antinomy of Kant's Modal Metaphysics'. Stang's discussion also surveys some additional (but unpromising) options for attempting to resolve the Puzzle beyond those we consider below (Stang 2016: 302-7).

appears to posit at least two specific kinds of noumenal causes. The first is the thing in itself or transcendental object that is the cause of appearances (see, e.g., A288/B344). The second is the will, or the causality of practical reason (see, e.g., A547/B575 and *CPrR* 5:55). In both cases, one might claim that the necessary connections are merely between a noumenon and a phenomenon, but even if so, it would still be true that there are some modal facts involving noumena.

Noumenal contingency. Kant appears committed to some morally-significant noumenal actions having the modal property of contingency. Even though all temporal events are necessitated by antecedent conditions, Kant holds, we can still coherently blame people for wrong actions, and thereby regard 'reason as a cause that… could have and ought to have determined the conduct of the person to be other than it is' (A555/B583). This is not merely the possibility of different phenomenal actions, but, at least according to the *Religion*, a possible difference in something noumenal: reason's fundamental maxim that underlies those actions.[38]

God's impossibility or necessity. As part of denying knowledge 'to make room for faith' (Bxxx), the mature Kant rejects any theoretical proof or disproof of God's existence, saying that the existence of a highest being can be neither proved nor refuted (see, e.g., A562/B590, A641/B669). In more explicitly modal terms, Kant states that 'an absolute necessary being of the understanding may always be impossible in itself' (A562/B590), and that we do not even know whether necessary beings are really possible (A592-4/B620-2), though he takes the idea of such a being to be psychologically necessary (A297-8/B353-4), offers practical grounds for postulating such a being (CPrR 5: 124-32), and says that the judgment that a necessary being exists may be true (A532/B560). Hence, Kant seems to hold that at least one noumenal being may, for all we know, exist necessarily or be impossible, apparently making room for noumenal modal properties that bear no connection to our experience or psychology.[39] In addition, Kant sometimes seems to attribute other modal properties to God, such as having unactualized powers. For example, in the lectures on religion, Kant says that, though humans can 'shun the laws of morality,' 'God could have given the human being overriding powers and motives sufficient to make him a member of the great realm of ends' (PR **[check abbreviation for Pölitz Religion]** 28:1113). To be sure, Kant does not think we have theoretical knowledge of God's existence, but he does appear committed to at least the intelligibility of noumenal modal facts about God, which would seem to imply that he saw no barriers to there being modality at the noumenal level.

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[38] See *Rel.* 6:35-37.
[39] See Stang 2011: 466, where Stang credits Des Hogan with this point.

4.2. Kant's apparent rejection of noumenal modality

Despite the apparent commitments to noumenal modality noted above, Kant appears to reject even the intelligibility of noumenal modality on two (related) fronts: modal concepts' expressing only a relation to our faculty of cognition and modal concepts' arising from our combined sensory and intellectual natures.

Modal concepts expressing only relations to the faculty of cognition. Returning to a passage mentioned above, Kant states that the categories of modality 'have this peculiarity: as a determination of the object they do not augment the concept to which they are ascribed in the least, but rather express only the relation to the faculty of cognition' (A219/B266, see also A74-5/B100).[40] This peculiarity, Kant then claims, justifies restricting these (and other) categories to empirical uses: 'if the categories are not to have a merely logical significance and analytically express the form of thinking, but are to concern things and their possibility, actually, and necessity, then they must pertain to possible experience' (A219/B266-67). Taking these passages at face-value, Kant seems to be saying that the modal categories represent or express *nothing more than* something thoroughly subjective, namely, how something relates to our faculty of cognition. If so, then there could no more be a noumenal modal fact or property than there could be a mind-independent cognition.[41]

Modal concepts' arising from our combined sensory and intellectual natures. In a much-discussed passage in the third *Critique*, Kant writes that

> It is absolutely necessary for the human understanding to distinguish between the possibility and the actuality of things. The reason for this lies in the subject and the nature of its cognitive faculties. For if two entirely heterogeneous elements [i.e. sensibility and the understanding] were not required for the exercise of these faculties, then there would be no such distinction (between the possible and the actual)… the distinction of possible from actual things is one that is merely subjectively valid for the human understanding… [But for] an understanding [such as God] to which this distinction did not apply, all objects… would *be* (exist), and the possibility of some that did not exist… would not enter into the representation of such a being at all" (5:401-403)

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[40] Note that Kant does not explicitly restrict this claim to real modality.
[41] Such a 'relational' understanding of modality is central to the reading of Abaci 2019.

Kant distinguishes here between our mind and that of a being like God, and seems to claim that, in virtue of this difference, only we represent (non-actual) possibilities.

There are two ways in which this passage might seem to rule out noumenal modality. The first and more straightforward way appeals to God's epistemic perfection: God is epistemically perfect, so if God does not *represent* any distinction between possibility and actuality, then there *is* no such distinction.[42] It is plausible, however, that if there is no distinction between possibility and actuality at the noumenal level, then there is no modality there either,[43] just as there would be no right/left facts if there were no distinction between left and right.

Alternatively, this passage might seem to rule out noumenal modality without relying on any claims about non-human minds such as God's. Kant appears to say that we make modal distinctions solely due to a peculiar feature of our mental architecture: our having distinct faculties of sensibility and understanding.[44] That feature is (arguably) *explanatorily isolated* from any noumenal modal facts, should there be any. Accepting this account of why we make modal distinctions while positing noumenal modal facts would therefore seem to require accepting a massive coincidence: despite their idiosyncratically subjective origins, our modal concepts just happen to latch onto non-subjective facts or properties![45] By analogy, imagine a view that combined Nietzsche's sociological account of the origin of moral concepts with a commitment to mind-independent moral facts - facts that the sociological factors just happened to line up with. The resulting coincidence would be more than most philosophers would be willing to accept, which is why accounts like Nietzsche's are often called 'debunking' in relation to realist views.[46] Hence, if Kant does accept this subjective account of the origin of modal representations, considerations of charity might prompt us to deny that he accepted any noumenal modality.

4.3. Solutions to the Noumenal Modality Puzzle

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[42] See Stang 2016: 298, who draws on Kohl (2015) (though Kohl focuses instead on passages in which Kant seems to deny the applicability of any categories to noumena, such as B145). See also Winegar 2018 for a nuanced discussion of the relation between the intuitive intellect and things in themselves. More recently, Kimberley Brewer has argued that divine omniscience, as Kant understands it, need not reach as far as mere possibilities (Brewer 2021).

[43] On this assumption, see Abaci 2019: 267.

[44] See Leech 2014. The same issue arises if we instead focus on the Metaphysical Deduction (esp., A74-5/B99-100, see also A321/B377-78), where Kant can be read as saying that modal concepts somehow arise from the modal functions of judgment, where, as noted above, the latter seem to concern something merely subjective: the inferential position of a judgment in thought.

[45] One way to avoid coincidence would be to accept a form of pre-established harmony, according to which God creates both our concepts and noumenal possibility. Kant rejects such views, however (see Stang 2016: 190).

[46] For one recent debunking argument that focuses specifically on coincidence, see Hussain 2021.

We now turn to mapping out some possible resolutions of the Noumenal Modality Puzzle, drawing inspiration from parallel issues in contemporary metaethics. Some of these solutions have been explored in the secondary literature, while others call for more attention. Note that some of these solutions could be combined. One could argue that logical modality calls for a different treatment from real modality, for example, or that modality calls for a different treatment in a practical context than in a theoretical context.[47]

Incoherence. The most straightforward 'solution' to the Puzzle would be to hold that Kant's views are simply incoherent. Typically, the principle of charity tells against ascribing inconsistency to a historical figure. However, as noted above, perhaps the incoherence here arises from Kant's sensitivity to a deep puzzle about modality: it is tempting to think there are mind-independent modal facts, yet also tempting to think that our modal representations express and arise from idiosyncratic features of our psychology. This might be a case where no tidy philosophical view can respect all our intuitions, so Kant's incoherence might be one we implicitly share.

Noumenal Realism. A noumenal realist reading of Kant would take the passages from §4.1 at face value and attempt to resolve the Noumenal Modality Puzzle by explaining away the apparent anti-realist implications mentioned in §4.2. For example, the noumenal realist reader could say that many of Kant's warnings about applying modal concepts to the noumenal are specifically concerned with the limitations of cognition (*Erkenntnis*), leaving room for true judgments about noumenal modality.[48] Against the argument that modal concepts merely express cognitive relations, the realist might say that those cognitive relations are *themselves* modal in the same way that noumenal things are. Against the argument appealing to God's not using modal distinctions, the realist might say that God does in fact represent the possible and the actual, but not *as such.* For example, God might accurately grasp certain relations between things' essences in non-modal terms, and we might (just as accurately) refer to these same relations in modal terms.[49] Against the debunking argument, the realist reader might respond that the features of our psychology that give rise to our modal representations may themselves have the right kind of modal grounds, thereby avoiding explanatory coincidence (and not merely

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[47] For example, Markus Kohl seems to endorse something like analogism for practical noumenal modality but fictionalism for theoretical noumenal modality (see Kohl 2015: 107, 111).

[48] For a helpful general discussion, see Schafer Forthcoming B.

[49] See Marshall 2018. By analogy: NanoPutians are synthetic molecules that are shaped like dancing humans. Yet their shape could just as accurately be represented without reference to humans. Note that, returning to the Reduction Puzzle, this might be sufficient for a reductive reading on an identity conception of reduction, though not on a grounding conception.

through a pre-established harmony). As we noted in the previous section, Kant himself invokes modal notions when explaining the modal function of judgments, e.g.: 'Apodictic judgments are those in which [the assertion or denial] is seen as necessary' (A74-5/B100). In addition, Kant denies that we have an ultimate explanation of our own faculties (see B145-46). Hence, even if that dual-stem psychology turned out to be amodal, its noumenal ground might well be modal. Assuming all those responses can be made to work, perhaps the most difficult challenge for the noumenal realist reader is one of explaining Kant's emphases: if Kant was an unapologetic realist about noumenal modality, why do so many passages suggest otherwise?

Analogism. One step away from the realist resolution of the Noumenal Modality Puzzle is an analogical resolution. On an analogical reading, Kant thinks our modal concepts can be used analogically to represent something noumenal, because some analogue or correlate of modality exists at the noumenal level.[50] However, this approach goes only part way towards addressing Kant's apparent rejections of noumenal modality. For example, it would still seem to be a significant coincidence if modal representations arose from or expressed idiosyncratic features of our psychology and there were explanatorily distinct, yet *modal-like* noumenal facts or properties. Hence, an analogical reading might require some of the realist reader's responses. The analogical reading also loses the realist reading's ability to take at face-value Kant's claims (e.g., in resolution to the Fourth Antinomy, esp. A560-62/B588-90) that some noumenal modal thoughts may be strictly true.

Fictionalism. Taking a further step away from realism, a different resolution of the Noumenal Modality Puzzle would take Kant to indeed reject noumenal modality or any analogue thereof, and then explain his apparent commitments to noumenal modality as endorsements of *unavoidable* or *useful fictions*.[51] Even if there could be no noumenal modality, perhaps there is some subjective justification for representing the noumenal using modal representations - say, as a regulative ideal or as a condition for practical rationality. Even this approach, however, may need to temper some of the apparent force of Kant's commitments to noumenal modality, since those statements seem stronger than endorsements of a fiction.

Expressivism. Finally, another non-realist reading could be motivated by Kant's claims that modal categories *express* relations to the faculty of cognition (see also KU 5:317). According to contemporary modal expressivism, modal claims are not meant to describe

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[50] See Stang 2016: 329 (cf. KU 5:464-65). Kohl 2015 suggests something similar for causality. But cf. Abaci 2019: 262. See also Reed Winegar's contribution to this volume.

[51] Though he does not put the matter in terms of fictions, Abaci suggests that modalizing the noumenal is an unavoidable mistake: 'the only way we can represent absolute spontaneity from a normative standpoint is to modalize it' (2019: 270).

features of the world (mind-independent or otherwise), but instead meant to convey or engage with semantic rules, representations, or something similarly subjective.[52] Along those lines, one could read Kant's claims about noumenal modalities as mere expressions of certain cognitive relations that are ultimately not meant to describe facts or properties, noumenal or phenomenal.[53] For example, the judgments that God exists and that God necessarily exists might make exactly the same descriptive claim, differing only in that the latter expresses something additional about the place of that judgment in a subject's mental economy. Such an account, suitably developed, may be able to make sense of Kant's apparent claims about noumenal modality without committing him to the existence of noumenal modality itself. Yet how to develop such an interpretation is not clear: contemporary modal expressivism has not been developed with an eye towards a Kantian distinction between noumena and phenomena, or towards a robust Kantian theory of moral freedom. However, the resourcefulness of contemporary expressivists (modal and otherwise) gives some reasons for optimism about the prospects of this interpretive approach.[54]

Conclusion

We have not attempted to assess the general plausibility of Kant's modal views in this chapter. By way of conclusion, however, we suggest that the complexities and difficulties in Kant's philosophy of modality may capture the genuine complexity and difficulty of the topic itself. Attention to this strain of Kant's thought may therefore provide both insight into the core of his philosophical system and into the nature of modality itself.[55]

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[52] The most extensive defense of modal expressivism is Thomasson 2020 (whose focus is on metaphysical modality, but suspects the view can generalize at least to logical modality - see 2020: 126-27). Robert Brandom (2015) defends a related view with more explicit Kantian motivations, though Brandom is less explicit than Thomasson about how his view relates to modal realist views.

[53] While accounts like Thomasson's tend to locate the role of modal concepts and terms primarily in intersubjective contexts (linguistic discourse), an expressivist reading of Kant's view would probably require a focus on intrasubjective contexts. For a relevant discussion, see Freitag and Kraus 2022.

[54] See Sinclair 2012, for one helpful discussion of the metaethical case, and Flocke 2020 for a relevant form of expressivism about ontology.

[55] In working on this chapter, we have benefited tremendously from comments from and discussions with Uygar Abaci, Andrew Chignell, Corey Dyck, Anthony Fisher, Mike Raven, Karl Schafer, Nick Stang, and, especially, Anil Gomes, Jessica Leech, and Andrew Stephenson.

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