

LOGICISM, POSSIBILISM,
AND THE
LOGIC OF KANTIAN ACTUALISM

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I. Introduction

Modal metaphysics is one of the most fertile – I am tempted to say febrile – areas of research in contemporary philosophy. It is an area in which certain historical figures loom large, if only eponymously. Our talk of possible worlds is Leibnizian. David Lewis was Humean. Kit Fine is Aristotelian. Kant, however, tends merely to appear as a stalking horse for incautious confluences of the necessary and the a priori, of modal metaphysics with modal epistemology.

Even within the Kant literature itself, it cannot be said that modal metaphysics has been a focal point of attention. There is, of course, an enormous amount of work dedicated in one way or another to Kant's metaphysics and Kant on metaphysics. But in contrast to, say, the nature of transcendental idealism, the theory of space and time, and the treatments of causality and the self, Kant's views on modality have been somewhat neglected.

One might be forgiven for supposing, then, that all this is because Kant wasn't much interested in the metaphysics of modality or that he didn't have anything much of interest to say about it. *Kant's Modal Metaphysics* shows how wrong this would be on both counts.

The book is a tour de force. In ten¹ closely argued chapters that display both philosophical acumen and a consummate grasp of a wide range of Kant's texts and their historical context, Nicholas Stang shows how a set of

¹ There is substantial additional material online at <https://sites.google.com/site/nickstang/>.

interconnected issues in modal metaphysics play an absolutely central role in Kant's pre-Critical philosophy, in motivating the Critical turn, and finally in the Critical philosophy itself. The resulting narrative is rich in insight and compelling. Far from being an incautious conflation, the connections Kant draws in the Critical period between the metaphysics and epistemology of modality are deep, intricate, well-motivated, and – so it seems to me – worthy of serious philosophical attention.

The book is organized into two parts of roughly equal length. Part I, comprising chapters 1-5, concerns Kant's pre-Critical modal metaphysics. The focus of this part is the *Only Possible Ground of Proof* or *Beweisgrund* essay of 1763, but there is also substantial discussion of the *Negative Magnitudes* essay of the same year. Part II, comprising chapters 6-10, concerns Kant's Critical modal metaphysics, from its announcement in 1781 in the *Critique of Pure Reason* through its development in the *Metaphysical Foundation of Natural Science* of 1786 to its full maturity in the *Critique of the Power of Judgment* of 1790. The last section of Chapter 5 and the first half of Chapter 6 act as a kind of fulcrum, summarizing the pre-Critical view before tracing the transition to the Critical view via brief but illuminating accounts of the 'Prize' essay of 1764, the 'Inaugural Dissertation' of 1770, and the famous letter to Herz of 1772.

This is a book of impressive scope, made all the more impressive by the fact that it thereby sacrifices nothing in quality.

In this extended critical discussion, I will focus on one central issue from the first chapter of the book: Stang's account of Kant's doctrine that existence is not a real predicate. This issue sets the stage for much of what comes after and that is my excuse for focusing on it here.

In §2 I outline some background. In §§3-4 I present and then elaborate on Stang's interpretation of Kant's view that existence is not a real predicate. For Stang, the question of whether existence is a real predicate amounts to the question: 'could there be non-actual possibilia?' (p.35).² Kant's view, according to Stang, is that there could not, and that the very notion of non-actual or 'mere' possibilia is incoherent. In §5 I take a close look at Stang's

² All unaccompanied page, section, and chapter references are to Stang (2016), except section references in bold, which refer to sections within the present text. References to Kant's works are by volume and page number of the Academy Edition, except those to the *Critique of Pure Reason*, which take the standard A/B format. I follow the Cambridge translations of Kant with occasional minor changes. Details of the volumes used are given in the list of references.

master argument that Kant's Leibnizian predecessors are committed to the claim that existence is a real predicate, and thus to mere possibilia. I argue that it involves substantial logical commitments that the Leibnizian could reject. I also suggest that it is in danger of proving too much. In §6 I explore two closely related logical commitments that Stang's reading implicitly imposes on Kant and I suggest that each can seem to involve Kant himself in commitment to mere possibilia.

A note on methodology before we begin. I take my lead from Stang in employing contemporary tools to aid my investigation of the philosophical structure of Kant's position. This is especially so in §§5-6, where I discuss universal free logic and quantified modal logic in some detail. These tools are anachronistic, of course, but the questions they are used to investigate are remarkably close to those that are in dispute between Kant and the Leibnizians. As Stang says, "The question of possibilism – could there be non-actual possibilia? – can be formulated [...] as the question: could there be a being that has essence but lacks existence?" (p.35). This is a question that Kant and the Leibnizians could make perfect sense of, and the same will be true, under suitable formulations, of the questions I connect to it. For instance: whether logic itself should carry ontological commitment; whether it needs special modal operators to express metaphysical modality; whether every object exists necessarily and what the difference is between that claim and the claim that necessarily every object exists; whether there is a difference between wide scope, sentence negation on the one hand and narrow scope, predicate negation on the other; and, most fundamentally, what it is that metaphysically underpins the truth or falsity of our modal claims.

One of my take-home points from this wonderful book is an appreciation of just how similar are the topics and dividing lines that move contemporary modal metaphysicians to those that moved the modal metaphysicians of the 17th and 18th century. Another is how coherent and sophisticated Kant's own view of these matters is, even by today's lights.

2. Logicism and Ontotheism

Kant's Modal Metaphysics opens with an account of the Leibnizian orthodoxy in modal metaphysics against which Kant sets himself in the pre-

Critical period. Stang calls this orthodoxy ‘logicism’.³ In a nutshell, logicism is the view that metaphysical (or ‘real’) modality is nothing over and above logical modality, where – in the simplest propositional terms – a proposition is logically possible just in case it does not entail a contradiction and logically necessary just in case its negation does entail a contradiction. In particular, logicism holds that there are no logical possibilities that are not also metaphysical possibilities and no metaphysical necessities that are not also logical necessities.

Logicist modal metaphysics makes modal epistemology relatively straightforward. Modal space is just logical space, hence our epistemic access to the latter is epistemic access to the former, and this is had via the conventional route of analyzing concepts and comprehending the logical relations that hold between them. In particular, logicism makes sense of how we can have *a priori* knowledge of metaphysical modality, since this kind of knowledge is just what conceptual analysis and logic provide:

The domain of the possible, for Leibniz, Wolff, and Baumgarten, is a logically structured domain of logically consistent concepts of possible objects, propositions about those possible objects, and their logical relations. By analyzing concepts into their more fundamental constituents, we gain insight into the logical structure of modal reality and attain *a priori* knowledge of possibility. (p.25)

That logicism provides a relatively straightforward account of how we can have *a priori* knowledge of metaphysical modality will be especially important when it comes to understanding Kant’s motivation for the Critical turn.

In the pre-Critical philosophy, Kant will distinguish metaphysical from logical modality. In thereby rejecting logicism, he deprives himself of its modal epistemology. On Stang’s narrative, it is in recognizing this deficit and working to develop a new account of how we can have *a priori* knowledge of metaphysical modality that Kant makes the Critical turn. The doctrine of transcendental idealism, the theory of intuition, and most generally the transformation of traditional ontology into transcendental philosophy and thus of first-order questions about objects into second-order questions about our representations of objects, are all elements in Kant’s response to this pressure. The guiding Critical question of how metaphysics

³ Not to be confused with the view that mathematics can be reduced to logic. As will become clear in a moment, it is also important to be clear that ‘logical’ here should be understood broadly, so as to also cover ‘analytic’ relations between *non*-logical concepts.

is possible is a question about how we can have a priori knowledge in *modal* metaphysics.

As I said, the narrative is compelling. In my view, it deserves a central place alongside other, more established narratives, for example that see the Critical philosophy as in large part a reaction to Hume.⁴

But what kicks it all off? Why does Kant distinguish the metaphysical and logical modalities and reject logicism in the first place? After all, as Stang notes and as many before and after Kant have agreed, ‘logicism is a deeply plausible view about the metaphysics of modality’ (p.20).

The answer – by equal parts obvious and too often overlooked in other narratives – is that it all comes down to God.

Having outlined logicism in §§I.2-I.3, Stang proceeds to argue in §I.4 that, given the assumption of divine necessity – an assumption shared by both the pre-Critical Kant and the Leibnizians – logicism implies what Stang calls ‘ontotheism’. Ontotheism is the view that ‘God exists in virtue of his essence’ (p.13). Arguing from logicism to ontotheism involves carefully drawing out a complex web of connections, first connecting logicism as expressed above to the more germane notions of demonstration and real definition and then connecting these notions to the notion of essence invoked by ontotheism. But the basic idea is familiar. Logicism holds that all necessities are logical necessities. So if it is necessary that God exists, then this must be a matter of the right kind of logical relation holding between the concept <God> and the concept <exists>. As Kant might later put it

⁴ It would be a fascinating further project to explore how Stang’s narrative interacts with the Hume narrative, not least because they appear to be in tension with one another. On Stang’s account, one of the key problems that motivates the Critical turn, and which Kant tries to solve in the Transcendental Deduction, is that of how we can know a priori that it is really (metaphysically) possible that the categories are instantiated (Chapter 6). This seems to involve a ‘weak’ reading of the Deduction where its aim could be met without showing that the categories are in fact instantiated. Such a conclusion looks insufficient as a response to Humean skepticism. Of course there are several moves Stang could make here, for instance to observe that his reading of the Deduction is only partial or that the anti-Humean work is done elsewhere, perhaps in the Principles. But another interesting possibility is that showing how we can know a priori that it is really possible that the categories are instantiated already suffices to show that they are in fact instantiated, because objects cannot be really possibly categorial without being actually (and thus necessarily) categorial. For recent discussions of issues in this area, see the exchange between Landy (2017) and Gomes (2017b) in the present venue, as well as Gomes (2017a) and Gomes and Stephenson (2016).

(though Stang prefers not to at this stage), the concept <God> would have to *contain* the concepts <exists>.

As Stang observes (p.28), ontotheism is a view Kant rejects almost from the moment he starts publishing philosophy. In the *Nova Dilucidatio* of 1755 he writes:

that there is something which has within itself the ground of its own existence [...] is absurd [...] I find, indeed, the view repeatedly expressed in the teachings of modern philosophers that God has the ground of His existence in Himself. For my part, I find myself unable to support this view [...] I know that appeal is made to the concept itself of God; and the claim is made that the existence of God is determined by that concept. It can, however, easily be seen that this happens ideally, not really. (Ak. 1:394)

By showing how logicism (together with the assumption of divine necessity) implies ontotheism, Stang shows how Kant's rejection of the latter implies a rejection of the former. It is then the task of the rest of *Kant's Modal Metaphysics* to chart the fascinating contours and profound consequences of this rejection. What I want to focus on in these comments is the first step of that journey.

The purpose of Stang's account of the Leibnizian orthodoxy of logicism and ontotheism is to situate his interpretation of Kant's famous claim that *existence is not a real predicate*. In particular, Stang wants to provide systematic support for his interpretation by explaining in detail how, so interpreted, the claim plays a central role in Kant's rejection of the Leibnizian orthodoxy. To this end, Stang argues in §1.5 that logicism, via ontotheism, implies that existence *is* a real predicate. Hence Kant's claim that existence is *not* a real predicate implies a rejection of the Leibnizian orthodoxy, both ontotheism *as such* and logicism *as such*. Kant will certainly have other objections to logicism (see Chapter 3), but this is the first and most fundamental.

In the next two sections I explore Stang's account of what is at issue in the question of whether or not existence is a real predicate. In §5 I turn to his argument that logicism, via ontotheism, implies that it is.

3. Possibilism and Actualism

The claim that existence *is* a real predicate, on Stang's interpretation, is the claim that it could apply to some objects and not to others (see §1.6,

especially p.39 and p.42). Like the predicate ‘is a narwahl’, the predicate ‘exists’ has the potential to divide a domain of objects into those that do and those that do not possess it – just as it is possible that some objects are narwahls and some are not, so it is possible that some objects exist and some do not. *This* is the view that Kant so famously rejects when he says that existence is *not* a real predicate.

We can home in on the heart of the dispute, on Stang’s reading, if we note that possibility distributes over conjunction, so the view Kant rejects entails that it is possible that some objects exist and it is possible that some objects do not exist. Obviously Kant would not deny that it is possible that some objects exist. Rather what he objects to is the other conjunct, namely that it is possible that some objects do not exist.

Stang calls the view that it is possible that some objects do not exist ‘possibilism’ (§§I.5-I.6).⁵ In symbols, where $E!$ is our object-level existence predicate, and for the moment reading the quantifier as neutrally as you can:^{6,7}

$$(Possibilism) \quad \diamond \exists x \neg E!x$$

Possibilism is tantamount to the claim that existence is a real predicate, on Stang’s interpretation. Thus Kant’s claim that existence is not a real predicate is tantamount to the negation of possibilism. Assuming the

⁵ Again I think, at least at this stage, it is best *not* to think of Stang’s ‘possibilism’ (or his ‘actualism’) as mapping directly onto similarly named the views in the contemporary literature. There is clearly supposed to be some fairly tight connection – unlike with Stang’s ‘logicism’ – but as we shall see, part of what will be at issue in §6 is the extent to which this is settled.

⁶ I will occasionally make trivial changes to Stang’s logical notation.

⁷ Alternatively, and a little more carefully, we can reason as follows. Stang, in a similar vein to Van Cleve (1999: 188), offers us the following definitions (p.39): ‘A concept P *determines* a concept C if and only if it is possible that there is an object that instantiates C and P and it is possible that there is an object that instantiates C but not P ; and ‘A predicate P is a *determination* if and only if P determines at least one concept’. Stang takes ‘determination’ and ‘real predicate’ to be synonymous (p.36 – see Bader (forthcoming) for discussion). Thus:

$E!$ determines C iff $\diamond \exists x (Cx \ \& \ E!x) \ \& \ \diamond \exists x (Cx \ \& \ \neg E!x)$, so

$E!$ determines C only if $\diamond \exists x (Cx \ \& \ \neg E!x)$, so

$E!$ determines some concept only if $\diamond \exists x \neg E!x$, so

$E!$ is a real predicate only if $\diamond \exists x \neg E!x$, i.e. possibilism.

standard duality of both the quantifiers and the operators, this results in what Stang calls ‘actualism’:⁸

$$(Actualism) \quad \Box \forall x E!x$$

Actualism is the view that it is necessary that all objects exist. (Stang is careful to clarify: ‘this is *not* the claim that every object *de re* necessarily exists; it is merely the claim that, necessarily, the quantifier ‘for all’ ranges only over existing objects’ (p.32). I return to this distinction in §6).

Note that, if we hold fixed the duality of the quantifiers, the difference between possibilism and actualism tracks whether or not the object-level existence predicate can be defined like so:

$$(E!-Def.) \quad E!x =_{\text{def.}} \exists y y=x$$

Actualists can accept this definition. It makes the sentence inside the scope of the necessity operator in *Actualism* an uncontroversial logical truth. By the same token, however, possibilists must reject it. It makes the sentence inside the scope of the possibility operator in *Possibilism* an equally uncontroversial logical falsehood. Given *E!-Def.*, *Actualism* would say that, necessarily, everything is something; while *Possibilism* would say that, possibly, something is nothing. (Note again, in parallel with Stang’s clarification from the previous parentheses, this is not the more plausible sounding *de re* contingentist claim that something is possibly nothing, i.e. that there is something that could nevertheless have failed to be something.)

What we have here, then, is the widely acknowledged connection between Kant’s view of existence and our contemporary ‘existential’ quantifier.⁹ On a Fregean conception of that quantifier – as a second-order predicate, saying of concepts that they are instantiated – there is clear evidence for this connection. (And Frege himself effectively cites Kant’s view in §53 of the *Grundlagen*.) In the *Beweisgrund*:

Existence is not so much a predicate of the thing itself as of the thought which one has of the thing (Ak. 2:72),

⁸ The duality of the quantifiers is a stipulation (p.34n). For the duality of the operators, see Baumgarten’s *Metaphysics* §101, which Kant appears to follow without complaint. For instance, from notes to lectures given around 1790: ‘Necessary is that of which the opposite is impossible’ (Ak. 28:557).

⁹ See, for example, Bennett (1974: 228ff.), Van Cleve (1999: 189f.), Forgie (2000), Reed (2007: 169f.). For opposing views, see Rosefeldt (2008; 2011) and Rosenkoetter (2010).

If I say, 'God is an existent thing', it looks as if I am expressing the relation of a predicate to a subject. But there is an impropriety in this expression. Strictly speaking, it should say, 'Something existent is God', that is, those predicates which, taken together, we designate by means of the expression 'God' belong to an existent thing. (Ak. 2:74)

And in the *Critique*:

Now if I take the subject (God) together with all his predicates (among which omnipotence belongs) and say 'God is' or 'there is a God', then I add no new predicate to the concept of God, but only posit the subject in itself with all of its predicates, and indeed posit the *object* in relation to my *concept*. (A599/B627)

Interestingly, however, Stang insists that Kant is not *merely* claiming that existence is most fundamentally a (proto-Fregean) quantifier when he says it is not a real predicate. According to Stang, this cannot be the whole story. For in itself, the claim that existence is *some such* quantifier is entirely compatible with the claim that it is possible that some objects do not exist. Indeed, it is compatible with the claim that in fact some objects do not exist. If existence is merely a *restricted* quantifier, and so *not* defined as the dual of the universal quantifier, then to say that (possibly) some objects do not exist is just to say that (possibly) some objects do not fall within the domain of (restricted) existential quantification.¹⁰

According to Stang, then, Kant is making the stronger, more specific claim that existence is an *unrestricted* quantifier:

the real issue between the ontotheist and Kant over existence is not whether existence is a quantifier (second-order predicate) but whether it is a restricted or unrestricted quantifier. The real issue is whether there is an existence predicate *for objects* that applies only to a subset of them (equivalently, whether the existence quantifier is a restriction of the 'there is' quantifier); the ontotheist must maintain that the existence predicate *for objects* applies only to a subset of them. (p.39)

¹⁰ Note that this is not to concede that possibilists could after all accept *El-Def*. '∃' is by stipulation the dual of '∀' and so by stipulation not restricted (in the relevant sense). What they could do is introduce a new quantifier '∃*', a restricted counterpart of '∃' which is not the dual of '∀', and accept *El-Def**: $Elx =_{\text{def}} \exists^* y y=x$. Thanks to Catharine Diehl for prompting clarification on this point.

Hence the primacy, on Stang's account, of the domain-dividing conception of real predication and the attendant distinction between possibilism and actualism.

We can put all of this together as follows.

All concerned can accept that *to be* is to be the value of a (first-order) variable (bound by an unrestricted quantifier). That is, no one in Stang's quasi-Quinean set-up is denying that, necessarily, all objects *are*; that, necessarily, everything is *something*; $\Box \forall x \exists y (y=x)$ (see especially p.26). But only the actualist, accepting *E!-Def.*, takes this to be equivalent to the claim that, necessarily, all objects *exist*. The possibilist, in claiming that possibly, some objects do not exist, must reject *E!-Def.* and thus maintain that there is, at least in principle, a distinction between being and existing, between being a something and being a something that is an existing object.

Ignore the issue of impossible beings and call those things that would have being but no existence 'mere possibilia'.¹¹ According to Stang, the Leibnizian is committed to (at least the possibility of) mere possibilia, while Kant is not so committed and in fact rejects (even the possibility of) mere possibilia.¹²

In §§5-6 I want to call into question both parts of this claim. First, however, an important clarification regarding the nature of possibilism, actualism, and the conception of an object that is in play in these views.

4. Logical Actualism and Two Conceptions of Objects

As noted above, Kant in the pre-Critical period is already in the process of distinguishing the logical from the metaphysical modalities and thus rejecting logicism. Stang is about to embark upon a thorough account of this process and much of what comes will involve carefully distinguishing different modal notions. Yet we have just seen that, on Stang's

¹¹ For the background to why we ignore impossible beings, see the Introduction, §1.2, and §6.6 – it concerns the Wolffian conception of ontology, or general metaphysics.

¹² I should note at this point that I am not altogether happy with the apparent iteration of possibility operators involved in Stang's set-up, which we saw already in §1 when he characterizes the debate as one concerning whether there *could* be *possibilia*. Sometimes he drops it (p.33); sometimes he insists on it (p.34). On the one hand, I can understand the motivation for talking in terms of whether a predicate could divide a domain rather than in terms of whether it in fact does so. On the other hand, I find it difficult to see what exactly is supposed to be weaker about committing to the possibility of there being mere possibilia as opposed to committing to there being mere possibilia. I suspect that the outer operator should be thought of as an epistemic modal.

interpretation, the claim that existence is not a real predicate is itself tantamount to a modal claim, namely actualism, the view that it is necessary that all objects exist.

We should therefore ask: Which kind of necessity are we dealing with here? Correspondingly, which kind of possibility is involved in possibilism, the view that it is possible that some objects do not exist? (Or again, in the original terms of what this means as a view about predication: How are we to understand the modality in Stang's interpretive claim that a real predicate is one that *can* divide a domain?)

Stang is never fully explicit in posing or answering these questions, but his position is clear enough (see especially the summary that comes later, at p.148).

Possibilism, for Stang, must be the view that it is *logically* possible that some objects do not exist. Otherwise, Stang's argument that logicism (via ontotheism) implies possibilism would itself amount to a reductio of logicism. He would have argued that the view on which metaphysical possibility just is logical possibility implies that metaphysical possibility is something other than logical possibility. Such a reductio is very far from Stang's intentions.

To come at the same point from the other direction, Kant's actualism, for Stang, must be the view that it is *logically* necessary that all objects exist. For on a conception of metaphysical necessity as distinct from logical necessity such that some metaphysical necessities are not also logical necessities, the view that it is metaphysically necessary that all objects exist would be entirely compatible with the view that it is logically possible that some objects do not exist – on such a conception, there are metaphysical impossibilities that remain logically possible.

Of course, the logicians themselves wouldn't distinguish the logical and metaphysical versions of possibilism or the logical and metaphysical versions of actualism, reducing metaphysical modality to logical modality as they do. And Kant, who would make such distinctions, may well *also* hold metaphysical actualism. But Stang wants to set up an opposition between Kant and his Leibnizian predecessors, and to do so without prejudging who is in the right – this only happens if we focus on the logical versions of the views.

This means that possibilism can be glossed as the view that the proposition that some objects do not exist does *not* lead to a contradiction and actualism as the view that the same proposition *does* lead to a contradiction. On Stang's reading, then, Kant's claim that existence is not a predicate is tantamount to the claim that it is ultimately *contradictory* to say that some objects do not exist. It is not just that Kant is not committed to mere possibilities – the very *idea* of mere possibilities is *incoherent*, for Stang's Kant.

Now, the claim that Kant holds it to be *logically* necessary that all objects exist might sound suspicious to many readers. Consider: the correlate view that existence is not a real predicate of course survives into the Critical philosophy (the canonical expression is at A598/B626). In Critical terminology, then, we might think to express Kant's alleged *logical* actualism as the claim that the concept *<exists>* is contained in the concept *<object>*, or otherwise put as the claim that 'All objects exist' is analytic, akin to 'All bodies are extended' (A7/B11). Both can seem mistaken. Indeed, they can seem to get Kant's view precisely the wrong way round.

Regarding the second formulation, Kant says that 'every existential proposition is synthetic' (A598/B626). Regarding the first, he says, for instance, that 'one can, to be sure, call everything, and even every representation, insofar as one is conscious of it, an object' (A189/B234). So surely even non-existents like unicorns still qualify as objects in *some* suitably Kantian sense of that term. In which case, how can *<exists>* be contained in *<object>*?

To an extent these issues are superficial, but they do highlight some important points.

To begin with, 'All objects exist' is not an existential proposition in Kant's sense, so there is no immediate tension here. Kant makes clear earlier in the same paragraph that, when he says every existential proposition is synthetic, he is talking about propositions of the form '*This or that thing... exists*' (A597/B625). These two kinds of proposition are quite different. The former is general, the latter particular. Assuming *E!-Def.* from above – the quantifier definition of 'exists' – the former can be symbolized as ' $\forall x \exists y y=x$ ', the latter as ' $\exists y y=a$ ', where '*a*' is some individual constant, '*This or that thing*'. Kant is saying that propositions of the latter form are synthetic, not the former.¹³

¹³ Presumably, Kant also has in mind as synthetic and existential those propositions of the form ' $\exists x Fx$ ' more generally, but this does not affect the present point. Thanks to Ralf Bader for prompting clarification on this point.

Nevertheless, this isn't quite the end of the matter. For if the former proposition were analytic, as Stang's account suggests, and if it logically entailed the latter, which it does in standard predicate logic, then presumably the latter would be analytic, too – Kant would take analyticity to be closed under logical entailment. So we would after all have a tension with Kant's claim that all existential propositions are synthetic. To avoid this result, then, Stang's Kant must reject standard predicate logic. More on this in section §6.

Regarding whether non-existents like unicorns qualify as objects in some suitably Kantian sense – they do, and in an absolutely central Kantian sense. They just don't count as objects in the sense of 'object' involved in Kant's actualism.

Stang marks a fundamental distinction between Kant's quantificational conception of an object and his representational (or intentional) conception of an object. The quantificational objects are '*the objects there are*' (p.290) and it is only in the quantificational sense that Kant holds that all objects exist. Talk of objects in the representational sense is really 'shorthand for talk of conceptual contents' (p.170-1). And in this sense it is definitively *not* the case that all objects exist – this would be to say that all concepts are instantiated.

This distinction plays a crucial role in Stang's narrative (see the Introduction, §2.8, and especially §6.6 and the additional online paper, 'Kant and the Concept of an Object'). Stang finds it in Kant's pre-Critical distinction between absolute and relative positing (e.g. at Ak. 2:73) and it is intricately related to the key Critical distinction between intuitions and concepts.¹⁴ Stang's account here is as rich and complex as any in the book and I cannot engage with it properly in these comments. I merely want to say enough to pre-empt any misunderstanding of Stang's position that might arise from my selective presentation of it.

With the distinction between quantification and representational conceptions of objects in hand, any worry that the claim that all objects exist looks straightforwardly un-Kantian is defused. The claim is straightforwardly un-Kantian only when 'object' is taken in its

¹⁴ Stang argues that 'for every intuition *there is* an object of that intuition, which entails that *the* object of that intuition [...] exists in the 'absolute positing' sense' (p.163). The final qualification here is crucial. As Stang goes on to point out in a footnote, this makes his position somewhat orthogonal to the recent debate concerning whether intuition is object-dependent. I try to clarify some related issues in Stephenson (2017).

representational sense. But in this sense, the claim would also be straightforwardly false. We have the concept <unicorn> but it is uninstantiated – no unicorns exist. This much is obvious, if unfortunate.¹⁵ Whether or not one holds that all objects exist when ‘objects’ is taken in its quantificational sense is a different question altogether. It is a question about whether or not one is ontologically committed to mere possibilia.¹⁶

5. From Logicism (via Ontotheism) to Possibilism?

In this section I turn to Stang’s argument that ontotheism implies possibilism. Recall the place of this argument in Stang’s dialectic. Logicism is the Leibnizian orthodoxy in modal metaphysics. Given the assumption of divine necessity – shared by all relevant parties – logicism implies ontotheism. So if ontotheism implies possibilism, so does logicism (for all relevant parties). And possibilism is tantamount to the claim that existence is a real predicate. The argument from ontotheism to possibilism is thus central to Stang’s account of Kant’s rejection of the Leibnizian logicist orthodoxy in modal metaphysics.

I have two main points. First, in §5.1, I suggest that Stang’s argument trades on substantial logical commitments that he is yet to give us reason to think the Leibnizian shares. Second, in §5.2, I suggest that the argument can appear to prove too much. In particular, it can seem to apply to Kant himself.

The purpose of both points is as much to raise a series of issues for discussion, issues that will come to prominence in the next section, where I suggest that Kant himself could be committed to mere possibilia.

5.1 The Logic of Logicism

The crux of Stang’s argument is that ontotheism (and thus logicism, given divine necessity) is committed to a claim that is effectively incompatible with *E!-Def.* and thus actualism, i.e. the quantifier definition of existence

¹⁵ At least it is obvious to ourselves and to Kant (see Ak 2.72). Perhaps it wasn’t obvious to Leibniz or the miners of Quedlinburg – see Stang’s whimsical and fascinating Preface.

¹⁶ I take it that the distinction between the quantificational and representational conception of objects might also be able to play a role in explaining away Kant’s occasionally undeniably possibilist manner of speaking, for instance when he says ‘Who can deny that millions of things which do not actually exist are merely possible’ (2:72) and ‘A hundred actual thalers do not contain the least bit more than a hundred possible ones’ (A599/B627) – see Rosefeldt (2011) for discussion.

and the view that necessarily all objects exist. Since the negation of actualism is possibilism, the view that possibly some objects do not exist, this is an argument that ontotheism is committed to possibilism.

I cite the argument more or less in full for the sake of perspicuity, because it is concise, and because I will discuss each part of it in due course:¹⁷

Ontothesists hold that God necessarily exists in virtue of the fact that his existence is grounded in his essence. They are committed to the following in-virtue-of claim:

- (1) $(\Box \text{God exists})$ in virtue of the fact that (God's existence is grounded in his essence).

This is an instance of the general principle that objects have predicates necessarily in virtue of those properties being logically grounded in their essences. That general principle entails that:

- (2) a 's essence grounds a 's being $F \rightarrow \Box Fa$.

In other words, any predicate grounded in an object's essence is a predicate the object necessarily has. Furthermore, the consequent of this conditional obtains in virtue of the antecedent; the object in question necessarily has the predicate *because* (in virtue of the fact) that predicate is grounded in its essence.

However, this conception of the relation between necessary predication and essence runs into problems if we make the assumption that necessarily every object exists, i.e. [*Actualism*]

- (3) $\Box \forall x E!x$.

Note that this is *not* the claim that every object *de re* necessarily exists; it is merely the claim that, necessarily, the quantifier 'for all' ranges only over existing objects. It is an immediate consequence of the most natural way of defining the predicate 'exists' [i.e. *E!-Def.*]

- (4) $E!x = \exists y y=x$.

[...] If we define 'exists' in this fashion, then the sentence inside the scope of the necessity operator in (3) is a logical truth; since logical truths are necessary, (3) is true. If we define the predicate 'exists' in this fashion, (2) entails:

- (5) a 's essence grounds a 's being $F \rightarrow \Box E!a$.

¹⁷ Recall that my logical notation differs slightly (but trivially) from Stang's – for the sake of readability I have built this in to the following quotation without making note of every case with square brackets.

[n. ‘Because $\Box Fa$ entails that $\Box \exists y y=a$, which, by (4), is equivalent to $\Box E!a$.’] In other words, any object with an essence sufficient to ground some of that object’s predicates is an object that necessarily exists. This entails that either no object other than God has essential properties, or that every object with essential predicates necessarily exists. Neither is an acceptable consequence.

The ontotheist might try to escape this consequence by modifying (2) as follows:

$$(6) \quad a's \text{ essence grounds } a's \text{ being } F \rightarrow \Box(E!a \rightarrow Fa).$$

But notice that the consequent of this conditional is trivial where ‘exists’ replaces ‘ F ’:

$$(6^*) \quad a's \text{ essence grounds } a's \text{ existence} \rightarrow \Box(E!a \rightarrow E!a).$$

The triviality of this conditional undermines the ontotheist position [...] If (6) is taken to be the meaning of (2), then every object necessarily exists in precisely the same sense that God necessarily exists: necessarily, if it exists, it exists.

In order to counter these problems, the ontotheist needs to retreat to (2) and reject the principle that [necessarily] every object exists, [i.e. actualism]. (pp.31-33)

The crux of this argument is the idea that those committed to (2) must reject *E!-Def.* and thereby actualism because combining (2) with *E!-Def.* leads to (5), which has unacceptable consequences (for all relevant parties).

At first it can seem as though this doesn’t have much to do with ontotheism. After introducing ontotheism at (1), Stang immediately takes a step back to a more general principle, (2). But (2) looks logicist at best, rather than specifically ontotheist. And the step that takes us from (2) via *E!-Def.* to (5) trades on general and well-recognized logical phenomena.

What is ingenious about Stang’s argument, however, and where ontotheism really plays a role, is in the observation that ontotheists cannot adopt one of the standard responses to that general and well-recognized phenomenon, namely to make necessary predication conditional on existence and thus replace (2) with (6). For doing so would yield (6*) as the meaning of (1), which cannot be what the ontotheists are after. Stang puts the problem with (6*) in terms of triviality. Another way to put the problem is simply that

(6*) does not say what the ontotheists want to say, namely that a being whose essence grounds its existence is a being whose existence is necessary.¹⁸

Still, it's difficult to shake the impression that something other than either ontotheism or logicism is doing much of the important work in Stang's argument.

I have two candidates in mind. Stang mentions one of them: 'The intermediate step – from $\Box Fa$ to $\Box \exists y y=a$ – fails in a free logic' (p.32n). He thinks this problem can be waived because 'the ontotheist who adopts a free logic will still require a theory structurally isomorphic to [possibilism and its correlate rejection of *E!-Def.*]' (p.32n). Stang might be right about this, and this is an opportunity for him to present his case. But it will be useful to be clear about what exactly is at stake here.

On the one hand, universal (or inclusive) free logics are presumably off the table for the logicist ontotheist (at least if they want to avoid rejecting *E!-Def.*, which is the whole point of the current exercise). Logicist ontotheists take it to be a logical necessity that God exists, hence a logical necessity that something exists. If we align logical necessity and theoremhood and assume *E!-Def.*, this is not the case in universal free logics.

On the other hand, although strictly speaking Stang is right that the step from $\Box Fa$ to $\Box \exists y y=a$ fails in a free logic, it is important to be clear that it does not fail in *all* free logics. In particular, it fails in positive free logics but not in negative free logics (regardless of whether or not they are universal).¹⁹ In negative free logics, all atomic formulae involving terms that do not denote existents come out false. Thus whenever an atomic formula, such as *Fa*, is true, it will be the case that *a* exists – negative free logics can recover a rule of existential generalization *for atomic formula*.²⁰ The issue is complicated ever so slightly by the presence of the necessity operators, but the general point stands – negative free logics can validate the step from $\Box Fa$ to $\Box \exists y y=a$.

Stang's burden is thus to show either that the Leibnizian cannot adopt a *non-universal positive* free logic or otherwise that doing so will still require a

¹⁸ Thanks to Jessica Leech for this way of stating the problem, and also for putting me on to Kit Fine's discussion of closely related issues (2005: 321ff.; see especially p.332, where Fine also observes that the ontotheist cannot make the standard move).

¹⁹ Nor does it fail in neutral free logics, but I put these aside as unavailable options in the present context since they require truth-value gaps.

²⁰ See Burge (1974: 312ff.) – his axiom A9 – and Evans (1982: 73).

theory structurally isomorphic to possibilism and its correlate rejection of *E!-Def.*

Regarding the second option, one thought here might be that providing a semantics for such a logic involves ontological commitment to something like mere possibilia – as the truth-makers for atomic formulae involving terms that do not denote existents, for instance.

Aspects of each of the points I have made will be relevant in what follows and I will expand on several of them in §6.1.

The second candidate I have in mind is quantified modal logic itself. To my mind, this issue is more serious. To begin with, note that it is notoriously easy to come by necessary existence in such a logic. As A. N. Prior (1957: 48) famously put it, ‘modal logic is haunted by the myth that whatever exists exists necessarily’. (Later on the same page, in a less famous line that is nevertheless especially pertinent here, he adds ‘which makes gods of us all’.) Might Stang’s argument be trading on this fact?

Consider the following chain of reasoning. It employs moves not dissimilar to those employed in Stang’s argument, except that no appeal is made to (2) or anything at all that looks specifically logicist or ontotheist. And yet we get to a conclusion that is even stronger than (5) or anything (5) entails, namely that, given *E!-Def.*, *everything* necessarily exists. The proof is surprisingly quick:

- (7) $\exists y y=x$
- (8) $\Box \exists y y=x$
- (9) $\forall x \Box \exists y y=x$

(7) is a theorem in standard predicate logic as well as in many non-universal free logics (i.e. those that allow free variables in their theorems). It is definitional of a ‘normal’ modal logic that it has a rule that allows us to take any theorem and necessitate on it to yield another theorem. Doing so yields (8). And we get (9) by applying the standard rule of universal generalization, which likewise allows us to universally generalize any theorem and preserve theoremhood. We seem to have used quite innocuous tools. But given *E!-Def.* – if the existential quantifier expresses existence – (9) says that every object whatsoever necessarily exists.

There are of course several different measures one can take to avoid this kind of result. (7) is not a theorem in universal free logics, for instance, though

we have seen that the Leibnizian might not be able to adopt such a logic. Alternatively, we can construct our logic so as to deny theoremhood to any formula with free variables, including (7), in which case we can neither necessitate to get (8) nor universally generalize to get (9).

On at least one natural construal of Stang's argument, it necessitates on a formula containing a free variable, namely at line (4), or *E!-Def*.²¹ Stang might well be able to avoid this contentious move by more clearly distinguishing *E!-Def* as an object-language formula and *E!-Def* as a schema or meta-language stipulation. But in any case, banishing free variables from theorems is not sufficient to fix the problem. Consider:

- (7*) $\exists y y=a$
- (8*) $\Box \exists y y=a$
- (9) $\forall x \Box \exists y y=x$

(7*) is a theorem in standard predicate logic and the rest is as before.

Again, there are of course several different measures one can take to avoid this kind of result, such as banishing individual constants from the language, restricting necessitation, or adopting a free logic (universal or otherwise, this time). But the point is made. Stang's argument involves substantial logical commitments, commitments with which we need to be very careful if we are not going to overgenerate necessary existence, regardless of logicism or ontotheism. And we have not been given reason to think the Leibnizian must accept them.

The deeper point is this. Couldn't the Leibnizian simply reject quantified modal logic altogether? In particular, couldn't they object to Stang's introduction of modal operators? After all, logicism is the view that metaphysical modality is exhausted by logical modality. And it might seem that ordinary non-modal logic already has the resources for expressing *logical* possibility and *logical* necessity, namely in terms of logical consistency and logical truth respectively. It is really only the *deniers* of logicism that need fundamentally new resources, like modal operators, to express their claims, since it is they who think that there are extra-logical possibilities and necessities.

As things stand, then, I do not think that Stang has shown that the logicist ontotheist *must* commit to possibilism and reject *E!-Def*.

²¹ See the presentation of the argument in the additional online material, 'Free Logic and Ontotheism'.

In §6 I will suggest that remarkably similar considerations concerning Kant's own logical commitments can seem to show that Kant himself is ontologically committed to mere possibilia.

Before that, I want to consider how Stang's argument relates to Kant. For it is not immediately clear why Kant himself would not accept (2) and thus might himself be in danger of being captured by the argument. Investigation of this issue will be similarly instructive.

5.2 Existence and Predication

Let me restate the key principle for ease of reference:

$$(2) \quad a\text{'s essence grounds } a\text{'s being } F \rightarrow \Box Fa$$

Stang says that (2) is entailed by 'the general principle that objects have predicates necessarily *in virtue of* those properties being *logically* grounded in their essences' (p.31, my emphasis). This general principle looks specifically logicist. But why would (2) not likewise be entailed by the more general, not specifically logicist principle that objects have predicates necessarily *if* those properties are grounded *in some way or other* in their essences? After all, it seems that nothing *represented in* (2) has changed here. So if (2) is entailed by the old principle then it should also be entailed by the new one. And the new principle does not look at all specific to ontotheism or logicism.

Many philosophers who want to reject ontotheism and who also want to distinguish the logical and metaphysical modalities might well accept that a predicate being grounded in an object's essence materially implies the object having that predicate necessarily. In particular, Kant himself might well accept this. It is compatible with denying that existence is a predicate that can ever be grounded in an object's essence and it is compatible with nevertheless conceding that some objects exist necessarily (albeit not in virtue of existence being grounded in their essences). Kant is not *generally* opposed to connecting essence and grounding to necessity.²²

²² See Stang's discussion of Kant's Critical conception of nomic necessity in Chapter 8, especially the core definition he argues for: 'It is *nominally necessary* that *p* if and only if *p* is grounded in the essences of actual empirical natural kinds' (p.241, 254). Admittedly, the Critical context and the restricted nature of nomic necessity affects the issue significantly, but the basic connection between essence, grounding, and necessity remains.

It might be objected that this worry involves a deliberate misreading of (2). Stang was explicit that its main connective was supposed to represent an explanatory in-virtue-of relation, not merely a relation of material implication. And it was at least implicit that the reference to grounding in the antecedent of (2) should be read as a reference to some specifically logicist conception of grounding. However, while it may well be true that Kant would reject the claim so interpreted, this would not resolve the present worry. For nothing in Stang’s argument relied on these features of (2). The issue is not whether we can find a reading of (2) that only the ontotheist and logicist accepts, but whether there is anything in such a reading on which the validity of the inference to (5) depends. If not, then Stang’s argument fails to target ontotheism (or logicism) specifically. Indeed, it looks in danger of proving too much and might even capture Kant.

To resolve this issue, we might again point to the fact that it is only ontotheists who cannot replace (2) with (6). Since Kant is no ontotheist, he can avoid Stang’s argument in this way.

Moreover, we could try to reinforce the legitimacy of attributing (6) rather than (2) to Kant. Let me restate the principle for ease of reference:

$$(6) \quad a\text{'s essence grounds } a\text{'s being } F \rightarrow \Box(E!a \rightarrow Fa)$$

(6) makes existence a condition on predication. And we might think that this is precisely what is implied by Stang’s interpretation of Kant’s view of existence. If existence is a quantifier (on the second-order predicate conception), then we might think that to say that something exists is to say that a predicate is instantiated. In which case, it makes little sense to attribute predicates to anything other than existent objects – predication presupposes existence. And indeed, on Stang’s interpretation, whether or not there can be beings that have essences (and thus possess predicates) while lacking existence is precisely what is in dispute between Kant and the Leibnizians. As mentioned in §I, this is supposed to be just another way of putting what is at stake between possibilism – which answers in the affirmative – and actualism – which answers in the negative. In contemporary terms, Stang’s Kant is not just an actualist but a *serious* actualist.²³

²³ See Plantinga (1983: 11). Two complications. First, Rosefeldt (2011: 338n) cites evidence against attributing such a view to Kant: ‘The proposition ‘God is omnipotent’ must remain true even for someone who does not acknowledge the existence of God’ (Ak. 2:74). However, the sentence continues: ‘provided that he understands how I construe the *concept* of God’ (my emphasis). And in the previous paragraph: ‘If I say: ‘God is omnipotent’ all

However, the question would still remain: Why should we think that Kant would chose precisely (6) as his way of expressing that aspect of his view? After all, if nothing can have an essence without existing, then the relevant object would have to exist for the antecedent of (2) to be true – an existence condition could be implicitly built into (2). And in any case, there are ways other than (6) to build in the existence condition more explicitly. For instance:

$$(2^*) \quad a\text{'s essence grounds } a\text{'s being } F \rightarrow (E!a \rightarrow \Box Fa)$$

And

$$(2^{**}) \quad E!a \rightarrow (a\text{'s essence grounds } a\text{'s being } F \rightarrow \Box Fa)$$

So, what distinguishes (6) from (2), (2*), and (2**)? Well one thing that distinguishes (6) is precisely its ability to avoid the kind of reasoning that Stang employs to get from (2) to the result that *a* exists necessarily if it has an essence (i.e. (5)). Specifically, (2*) and (2**) would still have the consequence that *a* exists necessarily if it has an essence *and* it exists.²⁴ This is a little weaker than the previous result but hardly more acceptable (to any

that is being thought is the *logical* relation between God and omnipotence' (Ak. 2:74, my emphasis). Plausibly, then, Kant is not denying that object-predication presupposes existence but rather that conceptual relations do.

Second, the connection between a second-order predicate conception of existence and a general existence presupposition for predication is less tight than the preceding suggests – it depends on what *kind* of second-order predicate conception one adopts. Suppose the following: for *a* to exist is for the concept <being identical to *a*> to be instantiated (i.e. (7*)). This is compatible with a positive free logic according to which *Fa* can be true without anything being identical to *a* and thus without *a* existing. On the one hand, this option could provide a way of reconciling Rosefeldt's reading of the passage from the previous paragraph with the passages we saw in §3 that support attributing to Kant a second-order predicate conception of existence. On the other hand, it might be off the table as a plausible reading of Kant because of the kind of 'haecceity' concept it involves. In any case, it deserves more attention than I can give it here and to my knowledge is yet to be explored in the (Kant) literature. My thanks to Lee Walters for bringing it to my attention.

²⁴ Proofs. For (2*): Assume that *a*'s essence grounds *a*'s being *F*. Then by (2*), if *a* exists then necessarily *a* is *F*. And if necessarily *a* is *F* then necessarily *a* exists, by Stang's original reasoning: ' $\Box Fa$ entails that $\Box \exists y y=a$, which, by [*E!-Def.*], is equivalent to $\Box E!a$ ' (p.32n). Thus if *a*'s essence grounds *a*'s being *F* and *a* exists then necessarily *a* exists.

For (2**): Assume that *a* exists. Then by (2**), if *a*'s essence grounds *a*'s being *F* then necessarily *a* is *F*. And if necessarily *a* is *F* then necessarily *a* exists, by Stang's original reasoning. Thus if *a* exists and *a*'s essence grounds *a*'s being *F* then necessarily *a* exists.

My thanks to Jessica Leech for pointing out the first of these to me. Generalizing to the second case was of course straightforward.

relevant party). (6) is the only one of the principles on offer that avoids such problems.²⁵

The point is that thinking that Kant can avoid Stang's argument because his view of existence suggests (6) specifically starts to look suspiciously ad hoc. And this only strengthens the previous suspicion that what is really doing the work in Stang's argument is the logic rather than logicism or ontotheism.

6. The Logic of Kant's Actualism

In this final section I want to call into question whether Stang's Kant is really free of ontological commitment to mere possibilia. I do so by exploring two substantive logical commitments that Stang's interpretation implicitly imposes on Kant, suggesting that each can seem to involve a commitment to mere possibilia.

What I point to are complex and on-going debates in contemporary philosophical logic and modal metaphysics and I cannot hope to settle them here. I hope merely to say enough to highlight their relevance and prompt further discussion.

The logical commitments implicit in Stang's account arise from combining Kant's (serious, logical) actualism with certain other views that Kant holds, namely that it is logically possible that nothing exists and that it is not the case that everything enjoys necessary existence. In §6.1 I argue that combining actualism with the first of these claims requires a universal free logic. In §6.2 I argue that combining actualism with the second claim requires rejecting the Converse Barcan Formula.

The problem with both of these results can be illustrated by looking at the semantics. For a universal free logic, we can consider a dual-domain semantics. For a quantified modal logic that invalidates the Converse Barcan Formula, the standard route is a variable-domain semantics. This all sounds rather technical but it is not. The basic idea roughly put is just that, in having more than one domain – that is, in positing domains of objects *beyond* the domain of existing objects in order to make sense of their claims

²⁵ It is no coincidence that (6) is also, as it were, 'more' *de dicto* than the other options – it is the only principle that has the modal operator range over a non-atomic formula. This is connected to the issues that were raised in the previous subsection and which will be relevant again in the next section.

– committing to these logics with these semantics would appear to involve commitment to entities other than existing objects, namely mere possibilities.

The same worry can also be expressed in terms of quantifier restriction. We saw at the end of §3 how Stang connected Kant's supposed eschewal of mere possibilities to the view that existence is not just a quantifier but an unrestricted quantifier. In these terms, the idea is as follows. While the logics in question do not themselves involve quantifiers ranging over anything other than existing objects, the meta-languages employ quantifiers that do precisely that. This amounts to an implicit restriction of the object-language quantifiers.

And to bring these two descriptions of the worry together. If our object-language quantifiers range over all and only existing objects and yet are restrictions of our meta-language quantifiers, then our meta-language is involved in quantification over something other than existing objects, namely mere possibilities, and this might be thought to suffice for ontological commitment to such entities.

Both aspects of this proposal might initially seem rather odd.

Regarding the free logic: Isn't the whole point of such logics to be free of the existence assumptions borne by standard predicate logic? Regarding a quantified modal logic that invalidates the Converse Barcan Formula: Hasn't such a logic traditionally been attractive to contemporary actualists precisely because it avoids ontological commitment to mere possibilities?

In the first case, the suggestion is that free logics avoid overtly committing to existing objects only by covertly committing to mere possibilities. Regarding the second case, the suggestion is that the traditional approach is mistaken.

6.1 Universal Free Logic

Standard predicate logic assumes both that all singular terms denote objects in the domain of quantification and that the domain of quantification is non-empty. On the standard interpretation of the quantifiers as ranging over *existing* objects – or, equivalently, the account of 'existing as being' which is embodied in *Et-Def* – these amount to *existence* assumptions, namely that all singular terms denote existing objects and that something exists.

Note that the assumptions themselves are part of the *formal structure* of standard predicate logic. What turns them into existence assumption is the standard *interpretation* of that structure (or *E!-Def.*).²⁶

Universal free logics are designed to retain the standard interpretation of the quantifiers as ranging over existing objects *without* thereby making *either* of those existence assumptions. Hence they must adapt their formal structure accordingly. First, they allow that singular terms need not denote objects in the domain of quantification – i.e., given their standard interpretation of what populates that domain, they allow that singular terms need not denote existing objects. This step is what makes the logic *free*. Second, they allow the domain of quantification to be empty – i.e., given their standard interpretation of what populates that domain, they allow for nothing to exist. This step is what makes the logic *universally free*.

Universal free logics are weaker than standard predicate logic (and non-universal free logics). In particular, *no* existential proposition is a *logical truth* on a universal free logic. Such a logic thus seems extremely apt for capturing Kant's views about logic.

It is important to be clear, however, that it is not thereby *trivial* to attribute a universal free logic to Kant. What I mean is this. It is fairly clear that Kant would not want his logic to make existence assumptions. This is part of the Critical doctrine of the formality of pure general logic (A55ff./B79ff.).²⁷ And in the pre-Critical period Kant says, for instance, 'There is no inner contradiction in the negation of all existence' (Ak. 2:78).²⁸ That is, he clearly thinks that is *logically* possible that nothing exists and thus that it is not a *logical truth* that something exists, contra standard predicate logic (and non-universal free logic).²⁹

But in itself, wanting logic to be free of existence assumptions is not enough to commit Kant to a universal free logic on the above, technical conception, where such a logic rejects the assumptions that all singular terms denote objects in a non-empty quantificational domain. For as we saw, these assumptions only amount to *existence* assumptions on the standard

²⁶ This distinction was already implicit at the end of §3.

²⁷ See MacFarlane (2002) and Lapointe (2012) for discussion.

²⁸ It is Kant's talk of 'inner contradiction' that signals he is talking about a logical modality here. When, on the next page, he goes on to argue that 'it is absolutely impossible that nothing at all should exist' (Ak. 2:79), he is talking about a metaphysical (or real) modality. (See Chapter 5 for detailed discussion of Kant's argument.)

²⁹ See pp.74-77 for Stang's discussion of these matters. He doesn't mention free logic, perhaps because he has in mind the point I make in the next paragraph.

interpretation of the quantifiers as ranging over existing objects, or *E!-Def*. And none of the points in the previous paragraph makes Kant beholden to such an interpretation.

This is where Stang's interpretation comes in. First, by taking Kant to be committed to *E!-Def*. But also, and in a way more fundamentally, by taking Kant to be committed to *logical* actualism. For *regardless* of the interpretation of the quantifiers, the actualist claim that everything in the domain of quantification exists entails that something exists if the domain must be non-empty. So if the claim that everything in the domain of quantification exists is supposed to be a *logical* truth, as we saw in §4 it is on Stang's account, this would mean that it must also be a *logical* truth that something exists. *This* is why, on *Stang's* reading, Kant must be committed to a logic that allows for the domain of quantification to be empty, i.e., a universal free logic.³⁰

In other words, Kant could well accept the *formal structure* of standard predicate logic while keeping logic free of *existence* assumptions, so long as he rejected both *E!-Def*. and actualism. He might, for instance, insist on a distinction between being and existence and claim that the quantifiers range over beings in general, only a proper subset of which are the existing beings. Again, then, the claim that Kant rejects such a view is a feature of Stang's interpretation. It is not obvious simply from the fact that Kant thinks logic should be free of existence assumptions.³¹

Why, then, is this significant? Why might it be a problem for Stang's account that his interpretation commits Kant to a universal free logic in this way?

James Van Cleve (1997: 197) argues that, 'if we adopt a free logic we depart at least from the spirit of the Kant-Frege view [of existence]'. Van Cleve's account of real predication and the issues it raises is in many respects similar to Stang's own, so this would be an interesting development. In fact I think

³⁰ More or less the same result can be reached via Kant's claim that no existential proposition is analytic – see §4.

³¹ Stang says (p.68n) that his interpretation of Kant's views on existence are 'diametrically opposed' to Rosefeldt's Meinongian reading – see Rosefeldt (2008) and (2011). We have seen some aspects of this already. But in a way what I now go on to suggest is that there might be more room for reconciliation here than Stang thinks. Or alternatively, that it might not be altogether clear what is philosophically at stake between these two interpretations of Kant's position.

that Van Cleve is wrong about this, and before I turn to my own point, it will be useful to explain why.

He says:

Free logic places a companion restriction on the rule of existential generalization, requiring ' $E!a$ ' as an auxiliary premise before one can get from ' Fa ' to ' $\exists xFx$ ', and that requirement has point only on the assumption that a can instantiate the property of being F even if a does not exist. How can that assumption be true if, as on the Kant-Frege view, asserting existence and asserting the instantiation of a property go hand in hand? (1999: 197 – I have made trivial changes to the notation)

Very similar points about the consequences of Kant's view of existence for predication were raised in §5.2. But Van Cleve's mobilization of them here rests on a mistake.

Free logics *per se* make no such assumption 'that a can instantiate the property of being F even if a does not exist'. Only positive free logics allow atomic formulae to come out true that involve singular terms that do not denote existing objects. Negative free logics require all such formulae to be false. Informally, negative free logics only allow existing objects to instantiate properties. And as we saw in §5.2, this is something the Kant-Frege view of existence can be taken to suggest. *At best*, Van Cleve's point shows that Kant would not accept a positive free logic.³²

We might then ask, what *is* the point of restricting the rule of existential generalization in negative free logics? The answer traces back to the reason free logics restrict the rule of universal instantiation. This restriction is more basic to free logic and has nothing to do with allowing anything other than existing objects to instantiate properties. That is, all free logics require an auxiliary premise of the form ' a is something (existent)' in order to validate moves from ' $\forall x(Fx) \rightarrow Fa$ ' to ' Fa '. This requirement 'has point' because, without it, ' a ' might fail to denote something existent, and so a might fail to be F even when everything existent is F – this is a requirement that holds across both positive and negative free logics and it involves no suggestion that non-existents can instantiate properties, merely that singular terms like ' a ' might fail to denote existents. And crucially, from this restriction on universal instantiation, the restriction on existential

³² Whether Van Cleve's point even shows this much is complicated by the issue discussed in note 23, but note that if it did, Kant would not be able to take the free logic route – mooted in §5.1 – to invalidating Stang's master argument to possibilism.

generalization *follows as a purely formal requirement* on maintaining the duality of the quantifiers. For the duality of the quantifiers makes the two rules equivalent.

Contra Van Cleve, then, free logic's *general* restriction of existential generalization 'has point' independently of any assumption 'that *a* can instantiate the property of being *F* even if *a* does not exist'. Thus negative free logic can recover something stronger via other considerations that are precisely in line with the Kant-Frege view, namely a classical rule *for atomic formulae*. Van Cleve's objection to attributing any form of free logic to Kant does not go through. And in fact, *in itself*, I take it that the attribution to Kant of a negative universal free logic is both highly plausible and somewhat underappreciated. So far so good for this (implicit) feature of Stang's account.³³

What, then, is the problem?

My own point holds only as an objection to Stang's proposal that Kant is free of commitment to mere possibilia, and implicitly that this commitment is therefore a good place to draw the most fundamental line between Kant and his Leibnizian predecessors.

I begin by putting the thought in very general terms before explaining the same idea in slightly more specific model-theoretic terms.

The standard semantics for standard predicate logic assigns objects as the semantic values of singular terms. All such objects are thought of as existing objects, given the standard interpretation of the quantifiers. And so long as we are not worrying about singular terms that do not denote existing objects, this is fine. But what to do when we do start worrying about allowing singular terms that do not denote existing objects?

One straightforward option is to retain the general idea that the semantic values of singular terms are objects, but to start allowing singular terms to have objects other than those in the domain of quantification as their

³³ Another natural but mistaken objection would be that free logics often employ Russell's primitive first-order existence predicate, *E!*, for instance in restricting their inference rules in the ways we have just seen that they do. Such a primitive first-order existence predicate would seem even more against 'the spirit of the Kant-Frege view'. But such predicates are dispensable – so long as we have bivalence and identity, they can be defined away in terms of the existential quantifier, as with *E!-Def*. (though there are also other options). See Lambert (1967) for useful discussion.

semantic values. And given the standard interpretation of the quantifiers as ranging over existing objects, this is to allow objects other than the existing ones to be the semantic values of singular terms. Whence mere possibilia, or rather something very like them, namely non-existent objects.

Now the same basic idea in model-theoretic terms.³⁴ One straightforward way to construct a model-theoretic semantics for universal free logic is to add a second, ‘outer’ domain to the standard single-domain model-theoretic semantics for predicate logic. We retain the original domain – now thought of as the ‘inner’ domain – and while either domain may be empty, their union must not be empty. The domains have no member in common (since this would interfere with valuation). We then modify the interpretation function, variable assignment function, and valuation function accordingly (with details depending on whether we want sentences involving members of the outer domain to come out all false, some true, or all neither true nor false – if Van Cleve and Stang are right about existence and predication, we want them all to come out false in this case).

The important point is this. Our quantifiers still only range over the original – now inner – domain. And since we retain the old informal interpretation of our quantifiers as ranging over existing objects, we think of the members of the inner domain as the existing objects. This is as before. Except that now it is natural to think of the members of the outer domain as the non-existent objects. Whence mere possibilia, or something very like them.

Now, to an extent, this is just model-theory, and as far as the mathematics goes, the members of the sets that are our domains can be any old things we want. But consider that our *intended* model is presumably one that puts *all* (and only) the existing things in the inner domain – our quantifiers are *meant* to range over *everything there is, everything that exists* (and nothing else). And the inner and outer domains cannot have members in common. So, in our *intended* model – i.e., when our formal notion of truth *in a model* is supposed to track our informal notion of truth *simpliciter* – the only things left to populate the outer domain will be non-existent things.

Of course this is all very rough and tentative and the issue is extremely complicated – my point is just that in this respect it remains to be settled what exactly Kant’s ontological commitments are. We might try to avoid the issue by adopting a general anti-realist stance towards our semantics, by refusing to take our semantics so seriously. Or we might provide an

³⁴ See Sider (2010: 129–32) for details.

alternative semantics. Most interesting, to my mind, would be to explore whether it is more amenable to the Kantian framework to eschew objectual semantics altogether, perhaps providing an intensional account of quantification in terms of individual concepts³⁵ or adopting an approach that gives truth-theory primacy over model-theory.³⁶ It is not clear how well this would fit with Stang's general set-up, or how it relates to Kant's views about individual concepts (A571/B599ff.; Ak. 9:91, 102) and truth as correspondence (A58-9/B83-4). But perhaps something like this is the real lesson of Kant's point about the formality of pure general logic.

6.2 Quantified Modal Logic

For ease of reference let me restate Kant's actualism:

$$(Actualism) \quad \Box \forall x E!x$$

Recall that Stang is careful to clarify: 'this is *not* the claim that every object *de re* necessarily exists; it is merely the claim that, necessarily, the quantifier 'for all' ranges only over existing objects' (p.32). To have a label, let us call that *de re* claim 'necessitism', and for clarity about what the difference is, let us state it in symbols:

$$(Necessitism) \quad \forall x \Box E!x$$

Necessitism says that everything necessarily exists. Maintaining the distinction between actualism and necessitism is crucial for Stang, for while he attributes actualism to Kant, he thinks it is obvious that all relevant parties, including Kant, would reject necessitism (p.32).

Now, however, consider the so-called 'Converse Barcan Formula':

$$(CBF) \quad \Box \forall x \phi \rightarrow \forall x \Box \phi$$

Informally, if necessarily everything satisfies a condition then everything necessarily satisfies that condition. CBF would allow us to derive necessitism

³⁵ See Garson (2006: 242ff., 286ff.) and Howell (1973), both particularly relevant given the topic of the next subsection.

³⁶ See Burge (1974) and Sainsbury (2005: 64ff.).

directly from actualism, for the special case where the condition in question is existence. Stang's Kant must reject CBF.³⁷

At this point even the reader who is still with me after the preceding subsection might be forgiven for finally crying 'anachronism'. I think that would still be premature. The Barcan schemas connect the *de re* and *de dicto* modalities in a systematic way. To reaffirm the methodological point made in §1, this is a distinction that Kant and the Leibnizians could make perfect sense of. Indeed, it is a distinction that Kant insists upon maintaining in exactly the kind of context we have been occupied with in these comments, namely in his discussion of ontotheism:

All the alleged examples [of absolute, unconditioned necessity] are, without exception, taken only from *judgments*, not from *things* and their existence. The unconditioned necessity of judgments, however, is not an absolute necessity of things. (A593/B621)

To my mind, it is not too much of a leap to read the last sentence as an explicit rejection of the exactly kind of *de re-de dicto* connection encoded in CBF.

Again, then, I take it that, *in itself*, the attribution to Kant of a rejection of CBF is quite plausible. And again, note that this is a particular feature of Stang's interpretation – Kant could well accept CBF so long as he rejected *E!-Def.* and actualism.

So what is the problem?

My worry is the same as before. Rejecting CBF can seem to involve ontological commitment to mere possibilia. This time I approach the issue slightly differently.

CBF is a feature of what is generally considered to be the simplest system of quantified modal logic. One reason the system is regarded as simple is that it posits only a single, fixed domain of quantification. Accordingly, one way to avoid CBF is to adopt a variable-domain semantics for quantified modal

³⁷ See Barcan (1943). Since CBF and its converse, the Barcan Formula, generally come together, it is therefore entirely fitting that Stang invokes an instance of the latter in his reconstruction of Baumgarten's ontological argument (p.60) – the Leibnizians accept the principles while Kant rejects them.

logic.³⁸ However, adopting a variable-domain semantics in this way can look tantamount to placing restrictions on our quantifiers. Yet on Stang’s interpretation, Kant’s doctrine that existence is not a predicate was supposed to be tantamount to the claim that existence is an unrestricted quantifier.

On the simplest, fixed domain approach to quantified modal logic, which validates CBF, a sentence like *Actualism* is straightforwardly about all objects whatever. And thus *Actualism* in particular says straightforwardly that it is necessary that all objects exist, where ‘all’ is read unrestrictedly. On a variable-domain approach that invalidates CBF, however, the domain of quantification is restricted by the context of evaluation. A sentence such as ‘ $\forall x E!x$ ’ would say something like: all objects *at the world of utterance* exist *at that world*. And *Actualism* says that, for each world accessible from the world of utterance, it is the case that all objects *at that world* exist *at that world*.³⁹

It is true that, if we adopt S_5 ,⁴⁰ this last claim turns out extensionally equivalent to saying straightforwardly that all objects whatever exist – in S_5

³⁸ The canonical treatment is Kripke (1963), though it is worth noting that Stang’s Kant could not accept exactly Kripke’s semantics, since it effectively severs the connection between existence and predication – see §§5.2-6.1.

Interestingly, a variable-domain semantics that abides by an existence-presupposition for predication (and is bivalent) will naturally distinguish between wide and narrow scope negation, or sentence and predicate negation, which looks a lot like Kant’s distinction between negative and infinite judgment (A71-2/B97 – see p.64 and Stang (2012) for discussion). Consider a world whose domain lacks some individual a . Then (to use Stang’s notation) both Fa and $(\sim Fa)$ will be false (where $\sim F$ is the property of being non- F), while $\neg(Fa)$ will be true (because Fa is false). See Stalnaker (1977) and Williamson (2013a: 122f., 144ff.) for useful discussion.

As was already hinted at in §5.1 (when it was noted that (7) is not a theorem of universal free logics, with (9) being closely related to CBF), there is also a related, though more complex and disputed connection between free logics and quantified modal logics that invalidate CBF. (See Garson (2006: 228ff.), and for discussion of this issue alongside a number of the other issues that have arisen in the course of these comments, see Fine (1978: 144), Fine (1981), and Salmon (1987).)

As I mentioned in §1, Stang’s Kant is looking remarkably coherent and sophisticated, even by today’s lights.

³⁹ See Bennett (2005) for discussion.

⁴⁰ See p.127 and p.134, where Stang attributes to Kant the characteristic axiom schema of S_5 – that possibly ϕ entails necessarily possibly ϕ . The direct evidence he cites is certainly suggestive (Ak. 2:85; Ak. 17:252; cf. Baumgarten’s *Metaphysics*, §§101-109, where there are several suggestions of a similar view). Stang also notes that to deny S_5 would be to allow that something could be possible while possibly being impossible, which would not sit at all well with the view Kant develops in the pre-Critical period according to which all (metaphysical) possibility is grounded in something absolutely (metaphysically) necessary.

there is no extensional difference between talking about all worlds accessible from the world of utterance and talking about all worlds simpliciter, thus talking about all objects (restrictedly) at all worlds (unrestrictedly) amounts to talking about all objects (unrestrictedly). However, this effective derestriction is due to the necessity operator, by *its* determination of which worlds and therefore which objects we are to take into account, by *its* effectively quantificational interpretation in the model-theoretic semantics. The object-language universal and existential quantifiers themselves remain restricted, each limited to a single world.

Now, it is for reasons related to the issues I have just outlined that systems of quantified modal logic that validate CBF are often thought of as ‘possibilist’ in the contemporary literature – their object-language quantifiers range over all objects whatever, supposedly including mere possibilities – whereas those systems that invalidate CBF are often thought of as ‘actualist’ in the contemporary literature – their object-language quantifiers range only over what is actual (though what is actual varies). So again we might ask: What is the problem here?

Correspondingly, Stang’s central interpretive claim was really only ever that, for Kant, existence is *no more* restricted than the object-language universal quantifier. This, after all, is just what the Leibnizian ontotheist-logicist orthodoxy is denying, on Stang’s reading:

the ontotheist needs to... claim that existence is not equivalent to falling within the scope of the universal quantifier (more precisely, being the value of a variable bound by the universal quantifier). The ontotheist needs to understand ‘exists’ as a predicate that (potentially) applies only to a subset of the objects that fall within the domain of the universal quantifier. (p.34)

That Kant must reject CBF and so apparently allow that the object-language quantifiers are themselves *both equally* restricted does not touch this point.

The problem, however, concerns what we are to make of the quantification implicit in the meta-language of a variable-domain approach to quantified modal logic. Is it really enough to avoid ontological commitment to mere

In this regard and especially with respect to the still more fine-grained Critical-era view, it should be said that we need to be very careful about mixing kinds of modality when it comes to assessing such embedding principles. If something is metaphysically possible, it might not be logically necessary that it is metaphysically possible, even though S₅ could still hold within a given modality (or across modalities in the other direction).

possibilia that one's *object*-language quantifiers range only over what is actual? Is no ontological commitment borne by the meta-language?⁴¹

This is connected to a familiar debate. Just what *are* those non-actual possible worlds and their inhabitants typically invoked in a variable-domain semantics? As Barcan Marcus herself put it, with suggestive emphasis, 'the semantics *accommodates* possibilia' (1985: 197). It is an issue that Stang touches on. Occasionally what he says suggests that he takes commitment to possible worlds to suffice for possibilism. For instance:

It is important to point out that the ontotheist does not need to claim there *are* non-existent objects, but only that such objects are possible; however, for many of the ontotheists considered here, their other philosophical commitments may push them to accept non-existent possible objects (e.g. Leibniz's possible worlds). (p.34)

But how is this different from the commitments that we have just seen that Kant seems to have?

Later, and quite correctly, Stang points out that there is a distinction between the Kantian conception of a world as 'a collection of substances unified by mutual causal interaction' and the technical notion of a world as 'a modal index, an element in a model theory for modal logic' (p.137). But is that really *all* that possible worlds amount to on a variable-domains approach? Model-theory has proven an extraordinarily useful tool for precisifying and cataloging the structure of relations between modal statements. But modal metaphysics is about the metaphysical underpinnings of modal statements. To connect the two, we need to give meaning to the model-theory. So the question is this: What, according to Stang's Kant, metaphysically underpins the failure of CBF?

Stang continues, 'neither possible worlds as modal indices, nor possible worlds as truth-makers of modal sentences, will play any role in my argument' (p.138). I have not disputed this. But I have suggested that such considerations arise quite naturally when, as Stang's Kant must, we distinguish actualism from necessitism. And I have suggested that they can seem to commit Stang's Kant to mere possibilia.

⁴¹ See Linsky and Zalta (1994: 439ff.), Williamson (1998: 263), and Williamson (2000: 206) for similar ways of putting the problem, and see Williamson (2013b) for more general discussion.

As before, this is all very rough and tentative and the issue is extremely complicated – my point is just that in this respect it remains to be settled what exactly Kant’s ontological commitments are. We might try to avoid such problems by adopting an *Ersatz* approach to possible worlds (to employ Lewis’s appropriately Germanic metaphor).⁴² Relatedly, and to my mind most interestingly, we might explore the possibility of an altogether non-objectual semantics.⁴³ Both CBF and possible worlds model-theory as a genuine theory of meaning can seem to suggest a certain primacy for the *de re*; they can seem suggestive of the idea that general, *de dicto* modal facts are grounded in particular facts concerning individuals. Perhaps the need for an alternative approach remains the real lesson of Kant’s Critical turn. But this is the topic of the second half of *Kant’s Modal Metaphysics*, and I must leave discussion of that for another occasion.⁴⁴

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⁴² See Lewis (1986: 136ff.). For a useful, more recent discussion, see Sider (2002).

⁴³ See again Garson (2006: 242ff., 286ff.). For an early non-objectual Ersatz approach that we might expect to be suitably Kantian, see Carnap (1947). For criticism and relevant discussion, see Williamson (2013a: 46ff., 203ff.). For a much broader discussion, which I take to have something like this idea in the background, see Baldwin (2002).

⁴⁴ My thanks to Ralf Bader, Catharine Diehl, Nora Kreft, Guido Kreis, Jessica Leech, Karl Schafer, and Lee Walters for comments on earlier drafts of this paper, as well as to Philipp Blum, Anil Gomes, Mike Martin, and Tobias Rosefeldt for discussion of related material at a workshop on the Metaphysics of Appearances in Ligerz, Switzerland.

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