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On Kant's Derivation of the Categories

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Abstract: In this paper, I put forth a novel interpretation of how the third categories under each heading in the table of categories (totality, limitation, community, and necessity) are derived. Drawing on a passage from the first *Critique* and a letter to Schultz, I argue that in order to derive these categories, a special act of the understanding is required. I propose that we interpret this special act as consisting of an application of the third logical function under the corresponding heading that unites the combination of the first and second categories (under that same heading) so as to produce the third.

Keywords: Kant, categories, logical functions

1 Introduction

In the *Critique of Pure Reason*, Kant famously attempts to derive the categories from the logical functions of judgment. Kant intends this derivation to be central to his transcendental philosophy, as it explains why his list of categories (unlike Aristotle's) can be thought of as systematically complete. Unfortunately, it is notoriously difficult to understand in detail how this derivation is supposed to work. This has led some commentators to dismiss Kant's derivation of the categories, regardless of Kant's own view of its importance.[1] More sympathetic

1 P.F. Strawson notably takes this line, dismissing the table of logical functions on the grounds that according to contemporary logic, which logical forms are primitive (and which derivative) is "the logician's choice" (Strawson, Peter: *The Bounds of Sense*. London 2002, 80). However, as Béatrice Longuenesse points out, interpreters who take very different approaches, such as Hermann Cohen (Cohen, Hermann: *Kants Theorie der Erfahrung*. Berlin 1885. 345 f.) and Martin Heidegger (Heidegger, Martin: *Kant und das Problem der Metaphysik*. Frankfurt am Main 1951, § 12, and *Phänomenologische Interpretation von Kants Kritik der reinen Vernunft*. Frankfurt am Main 1997, § 21e), also dismiss the derivation of the categories from logical functions, seeking to find the origin of the categories in the Analytic of Principles (as principles of an epistemology of

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interpreters such as Béatrice Longuenesse[2] and Michael Wolff[3] have developed interpretations according to which the categories are constituted by the logical functions insofar as they are put to a certain use. On this kind of interpretation, each category is derived by employing a single logical function to determine a manifold of intuition in general. This kind of view holds that the derivations of the different categories are perfectly symmetric, consisting wholly in the application of a single logical function to determine a manifold of intuition. In this essay, I will argue that, although natural and suggested by several passages in which Kant discusses how the functions and categories relate, this kind of interpretation needs to be developed in order to make sense of how the third categories under each heading (totality, limitation, community, and necessity) are derived. I develop an alternative interpretation according to which the derivation of the third categories is importantly different from that of the first two. The third category under each heading is derived (and can only be derived)[4] by combining the first two categories under the same heading in a particular way, viz., by uniting the combination of these categories using the third logical function under the corresponding heading.

In the second section, I discuss two passages in which Kant discusses the third categories' relation to the first two and argue that together they establish that the derivation of the third categories requires combining the first two categories under the same heading by means of a "*besonderen Actus des Verstandes*"[5] that must meet certain constraints. To my knowledge, few commentators have taken up the issue of how to understand this special act at all, and the ones that do discuss it at all tend to do so for purposes other than Kant's,[6] mention it in passing,[7] or

Newtonian science) and in the imagination (as the common root of the understanding and sensibility) respectively (Longuenesse, Béatrice: *Kant and the Capacity to Judge*. Princeton 1998, 3 f.).

2 Longuenesse, Béatrice: *Kant and the Capacity to Judge*. Princeton 1998, and *Kant on the Human Standpoint*. Cambridge 1995.

3 Wolff, Michael: *Die Vollständigkeit der kantischen Urteilstafel mit einem Essay über Freges Begriffsschrift*. Frankfurt am Main 1995.

4 My interpretation is committed to the claim that there is no way to derive the third category by using the third function by itself. I thank Timothy Rosenkoetter for helping me see the need to claim this explicitly.

5 KrV, B 111.10.

6 For example, McDonough, Richard: "Kant's Emergence and Sellarsian Cognitive Science". In: *Open Journal of Philosophy* 04, no. 01 2014, 47 and Lewis, J. J.: "Synthesis and Category: The Synthesis of the Heterogenous in Ricoeur and Kant." In: *Journal of French and Francophone Philosophy* 3, no. 3, 2010, 195 f.

7 For example, Rosenberg, Jay: *Accessing Kant*. Oxford 2005, 106 and Smyth, Daniel: "Infinity and givenness: Kant on the intuitive origin of spatial representation." In: *Canadian Journal of Philosophy* 44, no. 5–6, 2014, 6.

give a short treatment of this special act, at most discussing how it is involved in deriving one category.[8] In the extant literature, then, nobody has given a sustained treatment of what this special act involves and of how exactly the third categories under each heading are derived from the first two for each heading. In this paper, I give precisely such a treatment by putting forth a novel and systematic interpretation of this act as consisting of an exercise of the third corresponding logical function that unites the combination of the first two categories under the corresponding heading so as to derive the third. In doing so, I cite and discuss all the extant literature that I know of in which Kant's remarks about the derivation of the third categories under each heading are discussed at all. In the third section, I spell out this proposed interpretation and argue that it meets the constraints set out in the previous section. My proposed interpretation implies that there is an asymmetry in the function-category relations such that the way the third categories are derived from the corresponding functions is importantly different from the way the first two categories are derived. In the final section, I therefore consider several passages in which Kant discusses the function-category relations but does not flag an asymmetry in the derivation of the third categories, passages that suggest a more straightforward reading of the derivation of the third categories. I argue that, properly understood, these passages do not count against there being the kind of asymmetry my interpretation requires.

8 For example, Watkins, Eric: "Making Sense of Mutual Interaction." In: *Kant and the Concept of Community* 2011, 43; Schulting, Dennis: *Kant's Deduction and Apperception: Explaining the Categories*. Basingstoke 2012, 121; Waxman, Wayne: *Kant's Anatomy of the Intelligent Mind*. New York 2013, 294 f; Shabel, Lisa: "Kant's Philosophy of Mathematics." In: *Stanford Encyclopedia of Philosophy* 2014. Shabel tentatively claims that "This special act is presumably the *synthesis* that Kant describes as a function of both imagination and understanding, and which it is the business of the full theory of judgment – including the Transcendental Deduction and the Schematism – to explain", citing Longuenesse's *Kant and the Capacity to Judge*. However, there is no textual support for such a broad understanding of the special act of the understanding, for as I argue below, it specifically concerns the formation and non-derivative status of the third categories. Furthermore, Longuenesse does not discuss the special act in her work. As I note below, I agree with Watkins's, Schulting's, and Waxman's treatments of the special acts of Relation, Modality, and Quantity so far as they go. However, I add and stress that these acts essentially involve the exercise of the third corresponding logical function.

2 The Derivation of the Third Categories

There are two texts that provide evidence for the claim that the third category under each heading is derived in a more complicated way than by a single application of the third corresponding logical function to determine a manifold of intuition. The first is in section 11 of the Analytic of Concepts in his "2te Anmerk."[9] to the table of categories, and the second is in a letter to Schultz dated 17th February, 1784. I shall take these up in order.

In section 11, Kant remarks that each class of categories has three members because "die dritte Kategorie allenthalben aus der Verbindung der zweiten mit der ersten entspringt".[10] However, he warns, "Man denke aber ja nicht, daß darum die dritte Kategorie ein bloß abgeleiteter und kein Stammbegriff des reinen Verstandes sei."[11] The reason he gives for the non-derivativeness of the third categories is that "die Verbindung der ersten und zweiten, um den dritten Begriff hervorzubringen, erfordert einen besonderen Actus des Verstandes, der nicht mit dem einerlei ist, der beim ersten und zweiten ausgeübt wird".[12] Here Kant seems to claim that the combination of the first and the second categories (by simple conjunction) does not by itself yield the third category. To bring forth the third category, a special act of the understanding that is not involved in forming the first or the second category is required. Moreover, the resulting third category counts as a non-derivative, pure concept of the understanding precisely insofar as it involves such a special act.[13] If this is correct, then we can infer the following constraint on an interpretation of the derivation of the third categories from the above passage:

(C1): The third category under each heading (unlike the first two categories) is derived by combining the first and second categories under the same heading by means of a special act of the understanding.

9 KrV, B 110.17.

10 KrV, B 110.21–22.

11 KrV, B 111.06–08.

12 KrV, B 111.08–12.

13 It is worth emphasizing that Kant's explicitly discussing the special act as precisely what explains why the third category under each heading is non-derivative counts against interpretations on which the same act that combines the first two categories to produce the third in each class also combines the first two logical function/forms to produce the third in each class. Michael Wolff advances such an interpretation, one on which the special act is an "act of combination [*Actus der Verbindung*]" that combines properties of the first two elements of a heading to derive the third, and which is meant to apply both to categories and to logical forms of judgment (Wolff, Michael: *Die Vollständigkeit der kantischen Urteilstafel mit einem Essay über Freges Begriffsschrift*. Frankfurt am Main 1995, 162n247).

In order to understand better what is involved in this special act, I now turn to the letter to Schultz in which Kant also discusses the relation between the three categories under each heading in detail. In this letter Kant writes,

> Die dritte Categorie nämlich entspringt zwar freilich durch die Verknüpfung der ersten und zweyten, aber nicht blos durch Zusammennehmung, sondern eine solche Verknüpfung, deren Möglichkeit selbst einen Begrif ausmacht und dieser Begrif ist eine besondere categorie.[14]

In this passage, Kant explicitly claims that deriving the third category requires something over and above the conjunction of the first two categories (viz., a combination whose very possibility makes up a particular category), which explains why the third is not always applicable where the first two are.[15] Kant then adds,

> [A]ber auch da, wo die dritte categorie anwendbar ist, enthält sie immer noch etwas mehr, als die erste und zweyte für sich und zusammen genommen, nämlich die Ableitung der zweyten aus der ersten, (welche nicht immer angeht[])[16]e. g. so ist die Nothwendigkeit nichts anders, als das Daseyn, so fern es aus der Möglichkeit geschlossen werden kan, die Gemeinschaft ist die wechselseitige Caussalität der Substantzen in Ansehung ihrer Bestimmungen.[17]

14 Br, AA 10: 366.31–35. I should note that the first and second editions of Kant's *Briefwechsel* assign conflicting page numbers to this letter, since the second edition contains more letters. Throughout the paper, I cite the second edition.

15 "[D]aher auch bisweilen die dritte categorie da nicht anwendbar ist, wo die zwey erste gelte." Kant then gives the following example: "z. B. Ein Jahr – viel Jahre der künftigen Zeit – sind reale Begriffe, aber das All der künftigen Jahre mithin collective Einheit einer künftigen Ewigkeit, die als gantz (gleichsam absolvirt) gedacht wird, will sich nicht denken lassen" (Br, AA 10: 366.35–367.02). Years are thus a subject matter to which the first and second categories of quantity are applicable though the third is not. As Houston Smit has helpfully pointed out to me, God is an example of a subject matter to which the first and second categories of relation are applicable though the third is not. That is, God is a substance that enters into causal relations (viz., the creation of other substances). However, God does not stand in community with other substances, since these do not determine any effects in God. I discuss how God relates to the categories of relation further in the next section, when I discuss the derivation of the individual categories.

16 Kant does not close this parenthesis in his letter. However, I suggest that we interpret the parenthesis as closing after "*angeht*", such that what is inside the parenthesis is an aside indicating that the derivation or *Ableitung* of the second category from the first is not always acceptable. This makes sense, given that Kant notes the third category contains precisely such a derivation and is itself not always applicable. Moreover, closing the parenthesis before Kant's listing the examples of necessity and community allows us to interpret both of these third categories as examples of the way in which the third categories contain the derivation of the second from the first.

17 Br, AA 10: 367.02–09.

Kant here explicitly claims that each third category not only contains the first two corresponding categories as its marks but also connects these two categories such that the second is derived from the first. In other words, each third category is the concept of something that falls under the first category but only on the condition that it falls under the second category. Because the content of the third category is such that if it falls under the first category then it falls under the second, the third category contains the derivation of the second from the first.

The examples Kant gives in this passage seem to bear this out. He notes that necessity is nothing other than existence that can be inferred from possibility. In other words, something is necessary if its existence follows from its possibility. Thus, the concept of necessity contains the derivation of existence from possibility. Similarly, the concept of community is the reciprocal causality of substances with regard to their determinations. In other words, a community is such that if it is a substance, then it is a cause (i. e., then it enters into causal relations that determine effects in other substances). Thus, the concept of community contains the derivation of causality from substance. I return to discussing these examples in more detail in the next section when I give an interpretation of the way in which the individual third categories are derived. For now, I note that if my interpretation of this text is correct, then we can draw the following constraint on any viable interpretation of the derivation of the third categories:

(C2): The third category under each heading contains the derivation of the second category from the first, i. e., it is a concept of something such that it is a condition of its falling under the first category that it also falls under the second. This is the universal condition, specified in the third category, of something's falling under the third category.[18]

This second constraint about the content of the third category places constraints on what an adequate interpretation of the special act of the understanding must look like. For, however the special act of the understanding connects the first and second categories under a heading, the resulting combination must be such that it can be seen as containing the derivation of the second category from the first.

Together, the above two constraints on the derivation and content of the third categories (drawn from passages in which Kant discusses the third categories in detail) reveal what viable interpretations of the derivation of the third categories must look like. They must involve (a) a special act of the understanding that combines the first and second categories under the third such that (b) this third contains the derivation of the second from the first. My proposal for an interpre-

18 I am grateful to Houston Smit for illuminating discussions concerning this second constraint.

tation of the derivation of the third categories that meets these constraints is that the special act of the understanding required for this derivation is an exercise of the corresponding third logical function that unites the ordering or combination of the first two categories (under the relevant heading) under the third category. In the next section, I spell out this proposal and argue in detail that it meets these constraints.

3 The Special Act of the Understanding

My proposed interpretation relies on the characterization of function as the "Einheit der Handlung verschiedenen Vorstellungen unter einer gemeinschaftlichen zu ordnen".[19] Much may be said about Kant's rich conception of function. However, what is central to my purposes is that, whatever else it may concern, it involves not just the act of ordering representations under concepts, but also providing a unity to such representation-ordering acts. Emphasizing that functions are first and foremost *unities* of representation-ordering acts, rather than representation-ordering acts themselves, helps us see that the same function can be used to order different representation-ordering acts, i. e., acts that order different kinds of representations. For my purposes, what matters is that logical functions can be used to unite acts that order the categories. In other words, the logical functions can be employed to order different manifolds of representations under a concept, including manifolds consisting of the first two categories under a heading. It is therefore open to us to hold that the third logical functions in particular can be exercised in a way that orders the first two categories (under the corresponding heading) under a concept. This concept is plausibly the corresponding third category, for as we have seen, Kant claims the third category contains precisely these two concepts. The result of ordering the first two concepts under each heading using the corresponding third logical function is therefore plausibly seen as the derivation of the third category. As such, this particular employment of the third logical functions is a plausible candidate for the special act of the understanding involved in deriving the third categories.

Interpreting the special act of the understanding in this way allows the derivation of the third category to meet constraint **(C1)**, that the derivation involve a special act of the understanding. In order to argue that this interpretation also meets constraint **(C2)**, that the third category contains the derivation of the second category from the first, I now proceed to spell out the special act of the

19 KrV, A 68.08–11/B 93.06–09.

understanding involved in deriving the four third categories under each heading. In each case, I first give an account of how one can combine the first two categories without deriving the third, which shows there is room for the special act to take place. I then proceed to spell out how, by exercising the corresponding third logical function under each heading, one can derive the third category from the combination of the first two such that this employment of logical functions meets constraint **(C2)** and so appropriately constitutes the special act of the understanding.

3.1 Singular Function and the Special Act of Quantity

First, to see how it is possible to combine the first two categories of Quantity without yielding the third, we can look to Kant's example of such a combination: "die Vorstellung des Unendlichen",[20] which he holds is not a totality, not a "Zahl" or number. Here the relevant representation of the infinite would seem to be "[d]er wahre (transscendentale) Begriff der Unendlichkeit",[21] which is "daß die successive Synthesis der Einheit in Durchmessung eines Quantum niemals vollendet sein kann".[22] As Daniel Sutherland highlights, Kant's point here "is that we may think of a plurality of unities whose synthesis never reaches completion."[23] Infinity then, as a plurality of unities whose synthesis never reaches completion, is different from allness or totality as a "Vielheit als Einheit betrachtet"[24] (i. e., whose synthesis into a unity is complete). Thus, there is room for the special act of the understanding to take place in uniting the combination of unity and plurality in order to derive totality. Kant gives a similar example of a combination of

20 KrV, B 111.14.

21 This transcendental concept presumably contrasts with the "*mathematische Begriff des Unendlichen*", which Kant notes is "*eine Menge (von gegebener Einheit), die größer ist als alle Zahl*" (KrV, A 432n/B 460n), which Kant does not flag as a true concept. There are complications here concerning Kant's views on infinity and his philosophy of mathematics that I do not have the space to deal with at present. For example, since the synthesis of the infinite is never completed, it is not clear that it involves the representation of synthetic unity and therefore that it is a combination or *Verbindung*, i. e., the "*Vorstellung der synthetischen Einheit des Mannigfaltigen*" (KrV, B 130.24 f). This would make it an importantly different way of ordering representations than ones in which the synthetic unity of the manifold of representations is represented.

22 KrV, A 432.11–13/B 460.11–13.

23 Sutherland, Daniel: "The Role of Magnitude in Kant's Critical Philosophy" In: *Canadian Journal of Philosophy* 34, no. 3 2004, 433. This may seem odd to us from a contemporary perspective, but as Sutherland points out, "Kant shares the view widely held in the early modern period that numbers must be finite" (ibid.).

24 KrV, B 111.01 f.

unity and plurality that does not yet involve totality in the above-mentioned letter to Schultz. Here Kant notes that the concepts of *quantum*, *compositum*, and *totum* belong under the categories of unity, plurality, and totality respectively and adds that a *quantum* can be thought as a *compositum* without yet involving the concept of totality, because its quantum is not thought as determinable through the composition (of the compositum), as in the case of infinite space.[25] Thus, the concept of infinite space also constitutes an example of a concept that combines unity (as a *quantum*) and plurality (as a *compositum*) without yet constituting a totality.[26]

Now let us see how employing the singular function allows us to unite the combination of unity and plurality to derive totality.[27] In Kant's own words, a

25 "z. B. die Begriffe *quantum*, *compositum*, *totum* gehören unter die Categorien der Einheit, Vielheit, Allheit; allein ein *quantum* als *compositum* gedacht würde doch noch nicht den Begrif der totalitaet geben, ausser so fern der Begrif des quanti durch die composition als bestimmbar gedacht wird, welches nicht bey allen *quantis* Z. B. dem Unendlichen Raume angeht" (Br, AA 10: 367.24–29).

26 It seems then that, by contrast, a quantum thought as determinable through composition (that is, where the parts are prior to the whole, unlike space, in which the whole is prior to parts) would be a totality. Kant's discussion of infinite space here raises complications that I cannot deal with at present insofar as it indicates that infinite space is not a totality, even though it seems to be a totality insofar as it is a *totum analyticum* (rather than a *totum syntheticum*). In other words, infinite space is a whole, albeit one that is not preceded by its parts (KrV, A 438.09–11/B 466.09–11). For an illuminating take on this kind of *totum analyticum* and its relation to synthesis in Kant, see Kjosavik, Frode: "A Synthesis into a Whole which Is not a Synthesis out of Parts: On the Original Transcendental Figurative Synthesis of the Imagination" In: *Kant und die Philosophie in weltbürgerlicher Absicht*. Akten des XI. Kant Kongresses Pisa 2010. Ed. Stefano Bacin et. al., Berlin/New York 2013, 199–210.

27 At this point, the careful reader might worry about my pairing the singular function with totality. After all, intuitively, unity and singularity (and totality and universality) would seem to go together. In fact, this worry figures in an extensive debate among Kant scholars concerning the pairing of quantitative functions and categories. This, as Huaping Lu-Adler notes, stems from the fact that Kant in certain places (mainly in the first *Critique* and the *Prolegomena*) pairs unity with the universal function and totality with the singular function while in others (mainly in his lectures on metaphysics) he pairs unity with the singular function and totality with the universal function (Lu-Adler, Huaping: "Logical Form Singular Judgments." In: *Kantian Review* 19, 2014, 384). Some commentators, such as Bennett (*Kant's Analytic*, Cambridge 1966, 77) and Longuenesse (Longuenesse, Béatrice: *Kant and the Capacity to Judge*, Princeton 1998, 249), have argued that this latter pairing is to be preferred and that the table of the moments of thinking should have this latter, reversed order. See also Frede, Michael and Krüger, Lorenz: "Über die Zuordnung der Quantitäten des Urteils und der Kategorien der Größe bei Kant." In: *Kant-Studien* 61, 1970, 28–49, for a good overview of the relevant passages and another critical take on the second ordering. In opposition to such commentators, Lu-Adler has observed that, in resolving this issue, we need to distinguish between two questions: (a) how the quantitative logical moments and categories should correlate and (b) how the logical moments should be presented in a table

(Lu-Adler, Huaping: "Logical Form Singular Judgments." In: *Kantian Review* 19, 2014, 386–368). She then argues that these questions are handled from different viewpoints: (a) takes the viewpoint of pairing moments of thinking and categories, while (b) takes the viewpoint of arguing for and systematically presenting the elementary forms of judgment, a task which she holds "belongs to pure general logic" (ibid., 387). By separating the viewpoints these questions take, she argues one can "undermine any effort to determine how logical moments of quantity *should* be ordered in the table of judgments based on how the categorical ones are ordered" (ibid., 384). I think Lu-Adler is right that the above questions are distinct, that they are answered from different viewpoints, and that even though the pairing of singular judgments and unity and universal judgments and totality is correct for some purposes, the universal-particular-singular ordering is the right one for the presentation of the table of the moments of thinking. However, I disagree that this is because in this table, Kant considers the moments of thinking "in logical usage" (ibid., 386) as the basic logical forms of quantitative judgments. When presenting this table (especially in the Analytic of Concepts), Kant considers these systematically represented moments of thinking primarily from a transcendental-philosophical point of view, as logical *functions*, rather than from a general-logical point of view, as logical *forms*. Although related, logical forms and functions need to be distinguished. Some interpreters, such as Paton (Paton, Herbert.: *Kant's Metaphysic of Experience*. London 1936, 246 f), Bennett (Bennett, Jonathan: *Kant's Analytic*, Cambridge 1966, xii, 76 f, 92), and Frede & Krüger (Frede, Michael and Krüger, Lorenz: "Über die Zuordnung der Quantitäten des Urteils und der Kategorien der Größe bei Kant." In: *Kant-Studien* 61, 1970, 28–49) have tended to overlook the form/function distinction, but Wolff stresses how Kant seeks to uphold it in the Metaphysical Deduction (Wolff, Michael: *Die Vollständigkeit der kantischen Urteilstafel mit einem Essay über Freges Begriffsschrift*. Frankfurt am Main 1995, 19 and 32). Timothy Rosenkoetter also highlights this distinction and adds that that "the forms of judgment do not always reflect the function with which they are normally paired" (Rosenkoetter, Timothy: "Absolute Positing, the Frege Anticipation Thesis, and Kant's Definitions of Judgment." In: *European Journal of Philosophy* 18, 2010, 561n34), something which is overlooked even by some who acknowledge and stress this distinction, such as Allison (Allison, Henry: *Kant's Transcendental Idealism*, New Haven 2004, 48–51). The fact that the table of the moments of thinking *qua* table of functions is meant to provide the basis for the derivation of the table of categories counts against Lu-Adler's claim that, in constructing it, Kant is not concerned with how the categories are to be derived from the moments of thinking.

Still, I think Lu-Adler is right to claim that the different orderings of the quantitative moments of thinking are due to their being considered from different viewpoints and being put to different uses. The pairing of the universal function with unity and the singular function with totality takes the viewpoint of transcendental philosophy. The pairing of the singular function with unity and the universal function with totality seems to take the viewpoint of metaphysics, which focuses on the application of categories and logical *forms* in judgments of experience that determine intuitions under categories. This is the viewpoint at issue in the footnote in the *Prolegomena* that Longuenesse relies on to argue for the singular-unity and universal-totality pairing (Prol, AA 04: 302n). From this viewpoint, judgments that determine intuitions under the quantitative category of unity are singular judgments. Those that do so under the quantitative category of plurality are particular judgments (though Kant in this context prefers to call them plural judgments [*judicia plurativa*], which is precisely what his focus is in this footnote), and those that do so under the category of totality are universal. By distinguishing between the use of the moments of thinking

totality is plurality "als Einheit betrachtet".[28] This suggests that the special act must involve combining plurality/pluralities and representing pluralities as a single unity. Wayne Waxman understands the special act involved in deriving the category of totality as "the thought that expressly excludes the incorporation of any additional magnitude (unity or plurality) into the plurality, and this is done by determining the plurality as a unity".[29] This seems correct so far as it goes, but Waxman does not explain how the understanding determines plurality as a unity in a way that differs from the mere combination of plurality and unity. What seems to be involved in this determination is the consideration of the plurality as united so as to designate a singular individual constituted by the united plurality/pluralities. I propose that we can provide this explanation by noting that in the table of the moments of thinking, there is already a capacity to unite the combination of representations to designate a singular individual: the singular function.[30] Thus, by employing the singular function to unite the combination of unity and plurality, we can derive totality as plurality considered as a single unity. The special act of the understanding involved in deriving the third category of Quantity consequently involves a distinct exercise of the third corresponding (singular) logical function that unites the act that produces the third category of Quantity from the combination of the first two (and so the act of ordering the first two categories under the resulting third).

Interpreting the derivation of the category of totality as resulting from the application of the singular logical function to unite the ordering of unity and plurality under totality meets the above condition (**C2)** on an adequate interpretation of a third category: that it (totality) contains the derivation of the second category (plurality) from the first (unity). For according to this interpretation, a totality is plurality made into a single unity. As such, totality is the concept of something

as logical forms in judgments of experience and their use as logical functions in transcendental philosophy, we can accept that the quantitative logical forms are paired with categories as singular-unity and universal-totality in intuition-determining judgments of experience (as Longuenesse argues), while also holding that the quantitative logical functions are paired as universal-unity and singular-totality in deriving the categories from these basic acts of the understanding. In this way, we can solve the interpretive puzzle of the conflicting orderings of the moments of thinking in a way that respects the place of their table in Kant's transcendental philosophy, while still taking on board Lu-Adler's insight that these conflicting orderings are due to the moments of thinking being considered from different viewpoints.

28 KrV, B 111.01 f.

29 Waxman, Wayne: *Kant's Anatomy of the Intelligent Mind*. New York 2013, 295.

30 When the singular function is employed to unite the ordering of concepts in judgments, it is realized as the singular logical form of judgment, which designates a singular individual under the subject-concept falling under the predicate-concept (cf. KrV, A 71.15–17/B 96.17–19).

that falls under the category of unity (since it is itself a unity), but it does so only on the condition that it falls under the category of plurality (since it is a unity that essentially involves plurality). In other words, a totality is such that if it is a unity, then it is a plurality. Therefore, the category of totality so interpreted contains the derivation of plurality from unity.

This interpretation of the derivation of the third category of quantity is further supported by Kant's discussion of it in the above-mentioned letter to Schultz. For here he notes that a quantum thought as a compositum (and so a combination of unity and plurality) counts as a totality only insofar as the quantum is thought as determinable through the composition of the compositum: "allein ein *quantum* als *compositum* gedacht würde doch noch nicht den Begrif der Totalität geben, ausser so fern der Begrif des *quanti* durch die composition als bestimmbar gedacht wird".[31] In other words, for the combination of unity and plurality to count as a totality, they must be connected such that the unity must be thought of as determinable through the composition of the plurality. This connection is effected by the application of the singular logical function to unite the ordering of these two categories such that a single unity is determined from the composition of the plurality. When a unity is thought as determined (and therefore determinable) through the composition of a plurality, then what is thought is a unity but only insofar as it is a plurality and therefore meets the conditions for being a totality. As such, when we consider plurality as a single unity, we think of a totality, which is such that if it is a unity, then it is determinable through a composition (and so is a plurality).

If this interpretation of the derivation of the third category of Quantity is correct, it suggests that there is a different special act involved in the derivation of the third category under each heading from the combination of the first two.[32] However, all such special acts involve the same general structure: an application of the third logical function under the corresponding heading in order to unite the act that produces the third category from the combination of the first two. I will now flesh this structure out for the derivation of the third categories under

31 Br, AA 10: 367.25–28.

32 Another reason to think that there are different special acts for deriving the different third categories stems from the Aristotelian metaphysical tradition Kant inherits. According to this tradition, acts are differentiated according to their effects. Given that the special act of the understanding is employed with different effects (as it results in different categories' being produced), there are, strictly speaking, different special acts. I thank Houston Smit for helpfully pointing this out to me. This forms part of a general interpretive strategy that Smit implements in a manuscript that argues for the importance of the Aristotelian metaphysical influence in Kant's critical philosophy and that involves thinking of acts of synthesis centrally as mental actions *(Kant's Theory of Cognition)*.

the remaining headings of Quality, Relation, and Modality: limitation, community, and necessity.

3.2 Infinite Function and the Special Act of Quality

First, to see how it is possible to combine the first two categories of Quality without yielding the third, we can look to Kant's claims that limitation corresponds to infinite judgment and that "**Einschränkung** nichts anders als Realität mit Negation verbunden [ist]".[33] He notes that infinite judgments have the same form as affirmative judgments (an affirmation, which connects concepts using the copula 'is'), so general logic does not distinguish between them. Despite this similarity in form, a logical affirmation made by means of a negative predicate (as occurs in infinite judgments) has a particular "Werte oder Inhalt"[34] and so yields a particular gain for the whole of cognition (which is the reason why transcendental logic distinguishes between them). As an example of an infinite judgment, he cites "Die Seele ist nichtsterblich".[35] We see clearly in this example the general structure of infinite judgments: the logical form is affirmative (the copula of the judgment is "is" rather than "is not"), but the predicate under which the subject is subsumed is negative (non-mortal). Kant elaborates on what is involved in this infinite judgment as follows:

> [S]o ist durch meinen Satz nichts anders gesagt, als daß die Seele eines von der unendlichen Menge Dinge sei, die übrig bleiben, wenn ich das Sterbliche insgesamt wegnehme. Dadurch aber wird nur die Unendliche Sphäre alles Möglichen in so weit beschränkt, daß das Sterbliche davon abgetrennt, und in dem übrigen *Raum ihres Umfangs* die Seele gesetzt wird. Dieser Raum bleibt aber bei dieser Ausnahme noch immer unendlich, und können noch mehrere Teile desselben weggenommen werden, ohne daß darum der Begriff von der Seele im mindesten wächst und bejahend bestimmt wird.[36]

In this passage, Kant highlights that, in making this judgment, there is no positive determination of the subject-concept soul, and thus no amplification of the content of cognition in general. Instead, infinite judgments "sind wirklich bloß beschränkend in Ansehung des Inhalts der Erkenntniß überhaupt".[37] As such, it seems that the employment of the infinite logical function in uniting judgments

33 KrV, B 111.01 f.
34 KrV, A 72.07/B 97.11.
35 KrV, A 72.13/B 97.17.
36 KrV, A 72.16–73.02/B 97.22–98.06.
37 KrV, A 73.03–05/B 98.07–09.

orders concepts in a way that yields a determination of the subject-concept that is both positive and negative: positive insofar as the predicate-concept is determined as in agreement with the subject-concept, negative insofar as the subject-concept is thereby determined as merely *not* being a certain way.

Kant's account of infinite judgment suggests that in order to preserve the correspondence between the infinite function and the category of limitation, we should interpret limitation as a combination of reality and negation that similarly yields a determination of an object that is both positive and negative (i. e., that is grounded in the cancellation of real grounds). In other words, limitation involves determining an object as having a real property that consists of the combination of opposing reality and negation (standing in real opposition).[38] This is appropriately analogous to the infinite logical function determining a subject-concept both negatively and positively in an infinite judgment. If this is right, then a reality and a negation (a reality that opposes another) need to be combined in a particular way to yield a limitation, namely, by forming a determination from the opposition of the reality and the negation. The combination of a reality and a negation that is not yet a limitation would then seem to involve the combination of a reality and a negation that do not oppose each other. An example of such a combination is that of pleasure [*Vergnügen*] (a positive reality) and vice [*Laster*] (a negative reality that opposes a different positive reality, namely virtue [*Tugend*]).[39] In this combination, the positive and negative determinations are not combined so as to oppose each other and yield a limitation, i. e., a degree of reality that involves the opposition of a (positive) reality and a negation. We can therefore see that it is possible to combine reality and negation without yet yielding limitation and thus that there is room for the special act of quality to take place.

Now let us see how employing the infinite logical function allows us to unite the combination of reality and negation in order to derive limitation. What is missing from the mere combination of reality and negation above is that it fails to relate the reality and the negation as opposing each other in a way that yields a determination that is both positive and negative (i. e., is grounded in the opposition and cancelation of real grounds). This suggests that the special act must involve uniting the combination of reality and negation in a way that opposes them to yield a single determination that has positive and negative aspects (rather

38 I thank Marco Santi for pointing out to me that in limitation it is real (rather than logical) opposition that is in question.

39 In Reflexion 5580, Kant names triples of realities, negations, and the limitations they yield when combined: "Vergnügen, Schmertz, Gleichgültigkeit; Wahrheit, Irrthum, Unwissenheit [...] Tugend, Laster, *adiaphoron* [*morally indifferent character*] Nutzen, Schaden, gleichgültig sein" (Refl, AA 18: 239.04–08).

than being unopposed positive and negative determinations in a single object). We have seen how the employment of the infinite logical function in judgments involves uniting the combination of representations so as to determine a subject-concept both positively (given that the predicate-concept is determined as agreeing with the subject-concept) and negatively (given that the subject-concept is merely determined negatively, as not being something). Given this, it seems its employment in other representation-ordering acts should similarly involve a both positive and negative determination. Thus, by employing the infinite logical function to unite the act of combining reality and negation, we can combine the first two categories by opposing them, thereby producing limitation as a quality consisting of opposed reality and negation. The special act of the understanding involved in deriving the third category of Quality thus involves a distinct exercise of the third corresponding (infinite) logical function that unites the act that produces the third category of Quality from the combination of the first two (and so the act of ordering the first two under the resulting third).

Interpreting the derivation of the category of limitation as resulting from the application of the infinite logical function to unite the ordering of reality and negation under limitation meets the above condition (**C2)** on an adequate interpretation of a third category: that it (limitation) contains the derivation of the second category (negation) from the first (reality). For according to this interpretation, a limitation is a reality consisting of opposed reality and negation. As such, limitation is the concept of something that falls under the category of reality (since it consists partly of a positive reality), but it does so only on the condition that it falls under the category of negation (since it is a reality that also essentially involves a negation that opposes the former, positive reality). In other words, a limitation is such that if it is a reality, then it is a negation. Therefore, the category of limitation so interpreted contains the derivation of negation from reality.

3.3 Disjunctive Function and the Special Act of Relation

First, to see how it is possible to combine the first two categories of Relation without yielding the third, we can turn to Kant's claim, "daß ich den Begriff einer Ursache und den einer Substanz beide verbinde, noch nicht so fort der Einfluß, d. i. wie eine Substanz Ursache von etwas in einer anderen Substanz werden könne, zu verstehen".[40] It might seem puzzling for Kant to use "influence" at this point, for this seems naturally interpreted as a substance exercising its causal

40 KrV, B 111.15–18.

powers on another and so precisely as different from community. However, we should distinguish between a substance's exercising its causal powers on another and its influencing another. An example[41] of a combination of cause and substance that does not yield influence or community is God's causing the existence of other substances.[42] This involves God as a perfect substance causing the existence of the created substances but not the influence or causing of a determination in those substances. For the influence of a substance on another presupposes that the influenced substance is already doing something else, which is then altered and so influenced. In other words, influence is always the product of the joint exercise of at least two substances' causal powers, whereas inter-substantial causal creation only involves the exercise of the creating substance's powers.[43] Influence therefore involves mutual interaction or community between substances as distinct from mere causation between substances, making perfect sense of Kant's use of it at this point and leaving room for the special act of Relation to take place.

Now let us see how employing the disjunctive logical function allows us to unite the combination of substance and cause in order to derive community. What is missing from the mere combination of substance and cause is a reciprocal relation between representations. As Eric Watkins notes, "the concept of mutual interaction requires considerations of reciprocity and symmetry that go beyond the notions involved in the first two categories under that heading".[44] Watkins goes on to note that the special act of the understanding involved in deriving community "distinguishes it from a simple combination of the catego-

41 I thank Houston Smit for pointing out this example to me and for helpful discussion of the idea that for Kant influence already implies mutual influence.

42 As Eric Watkins notes, Kant thinks that generally "there must be a distinction between grounds that are necessary for a substance to exist at all and the particular way in which they bring about effects or determinations in other substances" (Watkins, Eric: *Kant and the Metaphysics of Causality*. Cambridge 2005, 247). He goes on to note that "in order for grounds to *determine* the states of other substances (as opposed to simply constituting the subsistence of their own substance), they must be placed in some position, situation, or context that allows them to bring about specific determinations" (ibid., 248).

43 As Watkins notes, in general the effects of substances' exercising their causal powers and so the ways in which those substances act in particular circumstances depend on those external circumstances, including (especially) what other substances are doing (Watkins, Eric: "Making Sense of Mutual Interaction." In: *Kant and the Concept of Community* 2011, 49).

44 Watkins, Eric: *Kant and the Metaphysics of Causality*. Cambridge 2005, 285. It is also evident that substance and cause do not possess the required symmetry because these first two categories are concepts of asymmetrical relations, which we can see in that accidents depend on substances for their existence and effects depend on causes for their reality (but not vice versa).

ries of substance and causality"[45] and rightly notes that what is crucial for community "is that the substances involved must *jointly* determine their states"[46]. However, he does not spell out what is involved in this special act that explains how the combination of substance and causation can yield a joint determination of states. I propose that we can provide this explanation by noting that within the table of the moments of thinking, there is already a capacity to unite the ordering of representations symmetrically or reciprocally: the disjunctive logical function. For as Kant notes, "enthält das disjunktive Urtheil ein Verhältniß zweener, oder mehrerer Sätze gegen einander, aber nicht der Abfolge, sondern der logischen Entgegensetzung, so fern die Sphäre des einen die des andern ausschließt, aber doch zugleich der Gemeinschaft, in so fern sie zusammen die Sphäre der eigentlichen Erkenntniß ausfüllen".[47] The employment of the disjunctive function in disjunctive judgments therefore involves relating different judgments as disjuncts, which are parts of a sphere of a possible cognition that subsumes the disjuncts as possible determinations of it. This relation is reciprocal or symmetrical: each of the parts of the sphere (the concepts that are disjuncts) is considered in logical opposition to the other (if one is determined, it is so to the exclusion of all the others) such that each of the parts of the sphere is seen as a different but equal part of a whole.[48] Given this, the employment of the disjunctive logical functions to unite other representation-ordering acts should involve relating representations in reciprocal opposition and community.

Kant confirms this last thought when he writes,

> Dasselbe Verfahren des Verstandes, wenn er sich die Sphäre eines eingetheilten Begriffs vorstellt, beobachtet er auch, wenn er ein Ding als theilbar denkt, und wie die Glieder der Einteilung im ersteren einander ausschließen und doch in einer Sphäre verbunden sind, so stellt er sich die Theile des letzteren als solche, deren Existenz (als Substanzen) jedem auch ausschließlich von den übrigen zukommt, doch als in einem Ganzen verbunden vor.[49]

The understanding employs the same logical function ("dasselbe Verfahren") in uniting the act of ordering different concepts under a common conceptual

45 Watkins, Eric: *Kant and the Metaphysics of Causality*. Cambridge 2005, 43.

46 Watkins, Eric: *Kant and the Metaphysics of Causality*. Cambridge 2005, 49.

47 KrV, A 73.22–28/B 98.26–99.06.

48 This is supported by what Kant adds in the "3te Anmerk." in section 11 of the Analytic: "in allen disjunctiven Urtheilen die Sphäre (die Menge alles dessen, was unter ihm enthalten ist) als ein Ganzes in Theile (die untergeordneten Begriffe) getheilt vorgestellt wird, und, weil einer nicht unter dem andern enthalten sein kann, sie als einander coordinirt, nicht subordinirt, so daß sie einander [...] wechselseitig [...] bestimmen (wenn ein Glied der Eintheilung gesetzt wird, alle übrige ausgeschlossen werden, und so umgekehrt)" (KrV, B 112.04–12).

49 KrV, B 112.24 –113.07.

sphere and in uniting the act of ordering substances with causal powers under a common dynamical community or whole. Employing the disjunctive logical function to unite the act of ordering substance and cause reciprocally connects substances (with causal powers), thus producing substances in mutual causal interaction, i. e., a community. The special act of the understanding involved in deriving the third category of Relation thus involves a distinct exercise of the third corresponding (disjunctive) logical function that unites the act that produces the third category of Relation from the combination of the first two (and so the act of ordering the first two under the resulting third).

Interpreting the derivation of the category of community as resulting from the application of the disjunctive logical function to unite the ordering of substance and causality under community meets the above condition (**C2)** on any adequate interpretation of a third category: that it (community) contain the derivation of the second category (causality) from the first (substance). For according to this interpretation, a community essentially involves substances in reciprocal causal interaction. As such, community is the concept of something that falls under the category of substance (since it is a composite substance),[50] but it does so only on the condition that it falls under the category of causality (since its composing substances essentially causally determine effects in each other reciprocally). In other words, a community is such that if it is a substance, then it is a cause. Therefore, the category of community contains the derivation of causality from substance.

This interpretation of how the third category of relation is derived is further supported by Kant's discussion of this same category in the above-mentioned letter to Schultz. Here he notes,

> die Gemeinschaft ist die wechselseitige Caussalität der Substanzen in Ansehung ihrer Bestimmungen. Daß aber Bestimmungen der einen Substanz von einer anderen Substanz gewirkt sein können, ist etwas was man nicht so schlechthin voraussetzen kan, sondern was zu den Verknüpfungen gehört, ohne die kein wechselseitige Beziehung der Dinge im Raume, mithin keine äußere Erfahrung möglich seyn würde.[51]

Kant here explicitly notes that the determination of effects in one substance by another substance is something that does not derive from substance and causality alone, but rather something that belongs to the connection that is a condition for the possibility of things relating reciprocally in space, and so of outer experi-

50 Kant talks of a dynamical community determined by the disjunctive logical functions as itself being a whole of things, "ein Ganze[s] der Dinge" (KrV, B 112.13 f), which suggests it is itself a (composite) substance. The example he gives of a body whose parts reciprocally attract and resist each other further confirms this.

51 Br, AA 10: 367.07–13.

ence. This reciprocal connection between representations is effected by the application of the disjunctive logical function, which coordinates representations with one another rather than subordinating one to another.[52] This helps confirm the interpretation that the category of community is derived by uniting the ordering of substance and causality under a concept using the disjunctive logical function.

3.4 Apodictic Function and the Special Act of Modality[53]

First, to see how it is possible to combine the first two categories of Modality without yielding the third, note that Kant claims, "**Nothwendigkeit** nichts anders als die Existenz, die durch die Möglichkeit selbst gegeben ist".[54] However, it seems clear that we can combine existence and possibility without that combination's yielding necessity. One way of combining existence and possibility that does not yield necessity is by judging that something is both possible and existent. This judgment combines possibility with existence but not in a way that yields necessity. Thus, there is room for the special act of the understanding to take place in deriving the third category of Modality from the combination of the first two.

Now let us see how employing the apodictic logical function allows us to unite the combination of possibility and existence so as to derive necessity. As we have just seen, Kant characterizes necessity as "the existence that is *given* by possibility itself."[55] The use of 'given' here suggests a determination relation, i. e., that necessity is existence determined or grounded by possibility. In order to understand this determination relation, it will be helpful to discuss explicitly Kant's conception of the modal logical functions. I will do so by relying on Timothy Rosenkoetter's interpretation of the modal logical functions.[56] Rosenkoetter interprets the modal logical functions as ways the understanding takes up

52 Cf. KrV, B 112.08.

53 In this section, I set aside discussion of the issue of how the correlate modal categories (impossibility, non-existence, contingency) are derived. My general view is that these negative correlates must be parasitic on the positive ones, being applicable in conditions where the latter are not. However, discussing them in more detail lies outside the scope of this paper – especially since it is far from clear that we can understand contingency as the combination of impossibility and non-existence (as something contingent is possible and can exist). I thank Andrew Stephenson for helping me see that I should address this.

54 KrV, B 111.05 f.

55 Ibid., my emphasis.

56 Rosenkoetter, Timothy: "A Non-Embarrassing Account of the Modal Functions of Judgment." In: *Kant und Die Philosophie in Weltbürgerlicher Absicht*. Akten des XI. Kant Kongresses 2010. Ed. by Stefano Bacin et. al. 2013, 383–442.

contents (themselves provided by the exercise of the first three logical functions). His interpretation largely centers around the act of judging *q*, holding that this act is problematic iff it is partially constitutive of the act that its judger *not* take herself to be aiming at truth,[57] assertoric iff it is partially constitutive of the act that its judger take herself to be corresponding to an object that makes *q* true,[58] and apodictic iff it is partially constitutive of the act that its judger take herself to be normatively beholden to inferential laws connecting *q* to other representations that serve as its ground.[59] In other words, the modal functions are three different ways for the understanding to relate to a proposition *q*, in taking itself to be representing *q*, i. e., three different ways to bring *q* to the objective unity of apperception. Our understanding can relate to this *q* such that it (a) thinks of itself as not judging truly of an object, (b) thinks of itself as judging truly of an object to which *q* corresponds, and/or (c) thinks of itself as judging truly of an object in virtue of laws of the understanding that it takes to be binding and that connect the judgment to other representations.

For my current purposes, what matters is that on this account, the apodictic function is employed to unite the act of bringing *q* to the objective unity of apperception in such a way that the subject takes herself to be connecting *q* through laws of the understanding to other representations that serve as the determining ground for *q*.[60] Above we saw that, given that one can combine existence

57 Ibid., 389.

58 Ibid., 388.

59 Ibid., 385. In his paper, Rosenkoetter argues in detail and to my mind convincingly that his interpretation of these functions is to be preferred to alternative ones, which he calls the Alethic Modality (Ibid., 384 f) and Quantifying over Acts views (ibid., 387 f). A potential worry with this account is that in defining the problematic function partially in terms of the assertoric function, this would seem to make the second member of the synthetic unity under the heading of modality (the assertoric function) into the condition for the first (the problematic function). However, as Kant claims in the third *Critique* (KU, AA 05: 179n), in any synthetic unity, the first member serves as the condition for the second. Another potential worry Houston Smit has suggested to me arises when considering how one may assume something for the purposes of a *reductio ad absurdum*, which would seem to involve the use of the assertoric function but not so clearly a relation to an object. Dealing with these worries will have to wait for future work.

60 I should note that Rosenkoetter's discussion centers around syllogisms such that the paradigmatic exercise of the apodictic logical function is the assertion of a conclusion in a syllogism in such a way that the premises of the syllogism together constitute the determining ground of the conclusion (Ibid., 385). A potential worry with this is that it seems to tie the modal functions too closely to their employment in judgment. This might seem to leave no room for the modal functions to be employed in bringing not just concepts but intuitions to the synthetic unity of apperception, which Kant explicitly notes functions can do in section 20 of the B-deduction: "Diejenige Handlung des Verstandes aber, durch die das Mannigfaltige gegebener Vorstellungen (sie mögen Anschauungen oder Begriffe sein) unter eine Apperception überhaupt gebracht wird,

and necessity without yielding necessity, the special act of the understanding involved in deriving necessity from the combination of possibility and existence must involve introducing a determination relation between possibility and existence. Dennis Schulting notes that there is a special act of the understanding in his discussion of the categories of modality and their relation to apperception.[61] He ties this back to Kant's idea in the third Critique that a synthetic unity in general contains (1) a condition, (2) a conditioned, and (3) the unification of the condition with its conditioned.[62] Schulting rightly notes that in the synthetic unity of the categories of modality, existence is the conditioned and possibility the condition; he thus interprets the category of necessity as the unification of the condition (possibility) and conditioned (existence), noting that it is not reducible to either one. However, he does not explain how this unification takes place. I propose that we can provide this explanation by noting that within the table of the moments of thinking there is already a capacity to unite the combination of representations such that some serve as the determining ground for others: the apodictic function. Thus, by employing the apodictic logical function to unite the act of combining possibility and existence, one can combine the first two categories by determining the first as the ground of the second, thereby deriving necessity as existence determined by or grounded in possibility. The special act of the understanding involved in deriving the third category of Modality thus involves a distinct exercise of the third corresponding (apodictic) logical function that unites the act that produces the third category of Modality from the combination of the first two (and so the act of ordering the first two under the resulting third).

Interpreting the derivation of the category of necessity as resulting from the application of the apodictic logical function to unite the ordering of possibility and existence under necessity meets the above condition (**C2)** on an adequate interpretation of a third category: that it (necessity) contains the derivation of the second category (existence) from the first (possibility). For according to this interpretation, a necessity is existence determined by possibility. As such, necessity is the concept of something that falls under the category of possibility (since it is possible), but it does so only on the condition that it falls under the category of existence (since its existence essentially follows from its possibility). In other words, a necessity is such that if it is a possibility, then it is an existence. There-

ist die logische Function der Urtheile" (KrV, B 143.09–13). Dealing with this complication lies outside the scope of this paper.

61 Schulting, Dennis: *Kant's Deduction and Apperception: Explaining the Categories*. Basingstoke 2012, 121 f.

62 KU, AA 05: 197n.

fore, the category of necessity so interpreted contains the derivation of existence from possibility.

This interpretation of the derivation of the third category of modality is further supported by Kant's discussion thereof in the above Letter to Schultz. He writes: "Necessity is nothing other than existence insofar as it can be inferred from possibility".[63] Here Kant explicitly claims that necessity involves the derivation of existence from possibility. He thereby claims that the category of necessity contains the categories of possibility and existence and connects them such that the latter is derived from the former. The connection is effected by the apodictic logical function, which unites the combination such that the first category serves as the determining ground for the second. Kant's discussion of this example thereby helps confirm the interpretation that the category of necessity is derived by uniting the ordering of possibility and existence under a concept using the apodictic logical function.

If what I have argued in this section is correct, then the interpretation of the special act of the understanding as an exercise of the corresponding third logical functions to unite the ordering of the first two categories under the resulting third fits all the third categories. In each case, the non-derivativeness of the third category is secured by the exercise of the third logical function in yielding the third category from the combination of the first two. I conclude this section by noting a few virtues of my interpretation of the derivation of the third categories. For one, it fits the details of all the third categories while giving them all a common general structure. Moreover, it achieves this while remaining consistent with Kant's claim "der Verstand ist durch gedachte Functionen völlig erschöpft und sein Vermögen dadurch gänzlich ausgemessen".[64] For the special act of the understanding is nothing more than a distinct application of the third logical function under each heading that unites the combination of the first and second categories (themselves produced by exercising the first and second logical functions). As such, we can make sense of the special act of the understanding involved in deriving the third category while accepting Kant's claim that the logical functions exhaust the understanding. Finally, my interpretation makes sense of how the special act by means of which the third categories are derived is a special act *of the understanding* in the narrow sense, i. e., of the capacity to grasp universals or to form concepts.[65] For the special act is an act by means of which we form the third pure concepts of the understanding under each heading. Indeed, it is an act by means of which we gen-

63 "die Nothwendigkeit ist nichts anders, als das Daseyn, so fern es aus der Möglichkeit geschlossen werden kan" (Br, AA 10: 367.06 f).

64 KrV, A 79.25–27/B 105.16 f.

65 I thank Houston Smit for helpfully pointing this virtue out to me.

erate real contents using only pure activities of the understanding (the third logical functions) and other such contents (themselves generated by means of other such activities of the understanding, i. e., the first and second logical functions).

4 Textual Worries Concerning Asymmetries in the Function-Category Relations

As noted above, my proposed interpretation of the special act of the understanding through which the third categories are derived entails that there is an asymmetry between the function-category relations. For on this interpretation, such a special act is not required to derive the first and second categories. One might worry that Kant does not flag this asymmetry in many passages in which he explicitly discusses the function-category relations.[66] For example, in the A-edition Phenomena and Noumena chapter Kant writes,

> Die reinen Kategorien sind aber nichts anderes als Vorstellungen der Dinge überhaupt, sofern das Mannigfaltige ihrer Anschauung durch eine oder andere dieser logischen Functionen gedacht werden muß: Größe ist die Bestimmung, welche nur durch ein Urtheil, das Quantität hat, (*judicium commune*) Realität diejenige, die nur durch ein bejahend Urtheil gedacht werden kann, Substanz was, in Beziehung auf die Anschauung, das letzte Subject aller anderen Bestimmungen sein muß.[67]

Another such passage in the first *Critique* is in the B-edition transition to the transcendental deduction, where Kant gives the "**Erklärung der Kategorien**":

> Sie sind Begriffe von einem Gegenstande überhaupt, dadurch dessen Anschauung in Ansehung einer der logischen Functionen zu Urtheilen als bestimmt angesehen wird [...] Durch die Kategorie der Substanz aber, wenn ich den Begriff eines Körpers darunter bringe, wird es bestimmt: daß seine empirische Anschauung in der Erfahrung immer nur als Subject, niemals als bloßes Prädicat betrachtet werden müssen; und so in allen übrigen Kategorien.[68]

Other passages that do not flag an asymmetry between function-category relations can be found in Kant's written works other than the first *Critique*. These include a footnote in the Preface of the *Metaphysical Foundations* and a passage in section 39 of the *Prolegomena* in which Kant discusses the function-category relations:

66 I thank Timothy Rosenkoetter for helping me see the importance of addressing this issue.
67 KrV, A 245.23–27.
68 KrV, B 128.19–129.08.

> *Zugestanden*: daß die Tafel der Kategorien alle reinen Verstandesbegriffe vollständig enthalte, und eben so alle formalen Verstandeshandlungen in Urtheilen, von welchen sie abgeleitet und auch in nichts unterscheiden sind, als daß durch den Verstandesbegriff ein Object in Ansehung einer oder der andern Funktion der Urtheile als bestimmt gedacht wird.[69]

> Ich bezog endlich diese Functionen zu urtheilen auf Objecte überhaupt, oder vielmehr auf die Bedingung, Urtheile als objective-gültig zu bestimmen, und es entsprangen reine Verstandesbegriffe.[70]

Another kind of passage that suggests a more straightforward reading of the derivation of the third categories involves Kant's discussing symmetries between the logical functions and categories, rather than discussing the relation between them explicitly. One of these is a footnote in the third *Critique* in which Kant makes a general claim about members of synthetic unities that apply equally to logical functions and categories:

> Soll eine Eintheilung *a priori* geschehen, so wird sie entweder analytisch sein nach dem Satze des Widerspruchs; und da ist sie jederzeit zweitheilig [...] Oder sie ist synthetisch; und wenn sie in diesem Falle aus Begriffen *a priori* [...] soll geführt werden, so muß nach demjenigen, was zu der synthetischen Einheit überhaupt erforderlich ist, nämlich 1) Bedingung, 2) ein Bedingtes, 3) der Begriff, der aus der Vereinigung des Bedingten mit seiner Bedingung entspringt, die Eintheilung notwendig Trichotomie sein.[71]

Another such passage is *Reflexion* 5854 on metaphysics, in which Kant treats functions and categories symmetrically in discussing how they both involve unities of consciousness:

> Es sind darum drei logische Functionen unter einem gewissen Titel, mithin auch drei Kategorien: Weil zwei derselben die Einheit des Bewußtseins an zween oppositis zeigen, die dritte aber beiderseits Bewußtsein wiederum verbindet. Mehr Arten der Einheit des Bewußtseins lassen sich nicht denken. Denn es sei **a** ein Bewußtsein, welches ein mannigfaltiges Verknüpft, **b** ein anderes, welche auf entgegengesetzte Art verknüpft: so ist **c** die Verknüpfung von **a** und **b**.[72]

The fact that all of these passages fail to flag an asymmetry in the third function-category relations might make us worry about interpreting the special act of

69 MAN, AA 04: 474n. Kant then goes on to discuss the example of substance as he does in the above B 128 passage.
70 Prol, AA 04: 324.01–03.
71 KU, AA 05: 197n.
72 Refl, AA 18: 370.05–12.

the understanding as I have. Moreover, these passages suggest a more straightforward reading of the relation between functions and categories, one in which they are all symmetric and in which there is therefore nothing particular about the derivation of the third categories.

In response to this fair worry, I can note a couple of things. First, although my account of the special act does entail an asymmetry between the first two and the third function-category relations, it is nonetheless compatible with the idea that the categories are nothing over and above the functions as employed to determine objects of intuition (as the above passages from the first *Critique*, the *Prolegomena*, and the *Metaphysical Foundations* claim). The asymmetry lies only in the fact that the way the third function is employed to determine such objects is somewhat more complicated than the way the first two functions are employed, for it involves the use of the first two functions to produce the first two categories (in addition to the third logical function that unites these categories to produce the third). However, the third category is nonetheless produced by the application of logical functions to determine objects of intuition. Kant can therefore rightly claim that the categories are nothing other than the logical functions insofar as they are related to objects of intuition, even though there is a subtlety in the way the third categories meet this requirement.

Given the fact that the reduction of the categories to logical functions is only subtly different for the third categories, one might reasonably forgive Kant for not discussing it in the above passages, which do not centrally concern the relation between categories and functions, as section 11 does. This is especially because Kant is often trying to accomplish a great deal already in his writings, delegating even some key issues to footnotes.[73] A further point to add is that in none of these passages, where Kant discusses the function-category relation rather straightforwardly, does he discuss one of the third categories as an example. He discusses one of the first or second categories under a heading and claims that one can do the same for the remaining categories. If the details for the third category derivation from a third logical function are only subtly different and involve additionally only the derivation of the first and second categories from their corresponding functions, we should expect Kant not to flag this complication explicitly unless he were focused on discussing subtleties about the categories and their relation to the logical functions. Moreover, it is worth emphasizing that if there is one place in Kant's published works where we would expect the kind of subtlety in the function-category relations represented by the

73 One notable example is the footnote in the preface of the second *Critique* where Kant notes that although the moral law is the *ratio cognoscendi* of freedom, freedom is indeed the *ratio essendi* of the moral law (KpV, AA 05: 04n).

special act of the understanding to show up, it would be in a section added in the second edition of the *Critique of Pure Reason* in which Kant explicitly focuses on the details of the third categories. Section 11 is precisely such a section, in which Kant makes "Betrachtungen" or "Anmerkungen" about the table of categories.

One can similarly argue that the symmetries discussed in the footnote in the third *Critique* and *Reflexion* 5854 do not rule out the asymmetry on which my interpretation relies. In the latter text, Kant treats the functions and categories under a heading completely symmetrically, noting that the first two involve opposing unities of consciousness and the third the combination of these opposing unities of consciousness. In the former, he focuses on synthetic unities in general (of which both the divisions of the functions and categories under a heading are instances). In neither of these passages is Kant concerned with the details of the derivation of the categories from the logical functions, but rather with what functions and categories share in virtue of forming synthetic unities and involving unities of consciousness. This is independent of the fact that the categories form synthetic unities by means of a special act of the understanding while the logical functions do not, for both the third functions and the third categories share properties (the ways of uniting consciousness) with their first and second counterparts. The difference, however, is that the third functions merely share properties with the first two functions, while the third categories additionally contain the whole first and second categories under the same heading as constitutive parts. Thus, these passages, which treat functions and categories symmetrically, do not rule out the kind of interpretation of the special act I wish to give.

5 Conclusion

In this paper, I have put forth an interpretation of the way in which the third categories are derived by means of a special act of the understanding. I hope to have shown that interpreting this special act as an application of the corresponding third logical functions to unite the combination of the first and second categories under each heading is a plausible and illuminating way of understanding how the third categories are derived and how they relate both to the first and second categories and to the corresponding third logical functions – one that does justice to the requirements set by Kant's own discussion of these two tables.[74]

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