Review

Logic and the Limits of Philosophy in Kant and Hegel by Clayton Bohnet

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here is no doubt that logic plays a central role in both Kant and Hegel's philosophical projects. Kant, for instance, thinks the principles of "pure general logic" constitute a clue for finding the general principles for the possibility of experience: the categories (A70/B95).¹ Hegel's The Science of Logic goes even further in placing logic at the heart of philosophy. Its suggestion is that the principles of logic derived within the body of *The Science of Logic* are not just the principles of thought, but equally the principles of being; thereby equating logic and ontology (Hegel, 1991, §24, p. 56). Clayton Bohnet's Logic and the Limits of Philosophy in Kant and Hegel undertakes the ambitious project of clarifying and contrasting Kant and Hegel's conceptions of logic, and correlatively the role that logic has to play within their respective philosophical projects. Bohnet proposes that we can take the treatment of the role of the logic of quantity in Kant's first Critique and Hegel's The Science of Logic to offer an insight into their respective views of the relation between logic and philosophy more generally. The relation between logic and philosophy is, of course, a fecund topic, and Bohnet's book provides us with a rich and historically

¹ References to the *Critique of Pure Reason* follow the standard A/B pagination. All references are to Kant (1998)

informed account of how Kant and Hegel think of the relation between the two.

Bohnet's book is divided into two parts. The first focuses on Kant's two logics, "pure general logic" and "transcendental logic", and traces the relations between the two (A62/B87). Bohnet's discussion of Kant is rich and touches on various parts of Kant's Critique of Pure Reason, such as the relation between three central subsections of the transcendental analytic, the 'Axioms of Perception', the 'Anticipations of Perception', and the 'Analogies of Experience' (Bohnet, 2014, ch. 3). Bohnet also considers Kant's remarks on quantity in his lectures on logic (Bohnet, 2014, ch. 2) and Kant's discussion of the ideas of reason in the Transcendental Dialectic (Bohnet, 2014, pp. 132-142). The second part of Bohnet's book focuses on Hegel's philosophical project and contains a discussion of two of Hegel's early works, The Difference between the Fichtean and Schellingian Systems of Philosophy and Faith and Knowledge, which Bohnet suggests offer an insight into the complex relationship between the early Hegel and Kant's theoretical philosophy (Bohnet, 2014, ch. 5). Bohnet's focus is on Hegel's suggestion that Kant's theoretical philosophy opens up the possibility of overcoming the standpoint of 'reflection', or finite human cognition, in favour of a type of thought that Hegel refers to as 'speculation'. Speculation, as Bohnet interprets Hegel, in contrast with reflection, is not constrained by the limitations and principles that apply to the cognition of finite human beings (2014, ch. 5). Bohnet's suggestion is that The Science of Logic develops this speculative standpoint, and in doing so, takes the principles of logic to be the principles of ontology; thereby, as Bohnet puts it, placing them at the heart of philosophy. In effect, for Hegel, pace Kant, logic does more than offer a mere set of boundaries to be respected if our thought is to be intelligible: logic also offers us an account of the nature of being (Bohnet, 2014, pp. 250-253).

It is the second part of Bohnet's book that stands out: his discussion of Hegel's early works and Hegel's assessment of Kant's critical philosophy contained within them offers a helpful way of approaching Hegel's The Science of Logic and assists in casting light on some central features of Hegel's project. Bohnet's discussion of Hegel's theory of judgement in the Logic, furthermore, offers a lucid account of Hegel's mature account of judgement, mapping the complex relation that The Science of Logic traces between the different forms of judgement (Bohnet, 2014, pp. 226-250). It is also worth noting that, in doing so, Bohnet manages to shed light on a part of the Logic that has suffered relative neglect in recent Hegel scholarship. Bohnet's discussion of Kant also has the merit of offering an overview of a large part of the Critique of Pure Reason. Yet the broad scope of issues covered by Bohnet and the ambitious nature of the book leads to some significant challenges. Most importantly, his attempt to explain the relation between logic and philosophy in Kant and Hegel leaves some of his claims underdeveloped and in need of further elucidation and defence.

This is particularly true of the conclusion Bohnet draws about the relation between Kant's two logics, "pure general logic" and "transcendental logic". Pure general logic, as Kant explains in the *Critique of Pure Reason*, "considers ... the logical form in the relation of cognitions to one another, i.e. the form of thinking in general" (A55/B79). As Kant explains elsewhere in the *Critique*, all human thought takes place by means of concepts, and the only use we have for concepts is judgement, which combines concepts (A68/ B93). The principles of pure general logic, then, are the principles that structure acts of judgement, constraining the way in which concepts can be combined. Put in less Kantian terms, the principles of pure logic, such as the principle of non-contradiction, constrain what is, and what is not, thinkable (Bxxvin). As Kant remarks, pure general logic is only

ever a "canon" for thought, which is to say that it lays down a set of rules that must be followed in all our thought, without offering us any new knowledge (A61/B85). Bohnet glosses this point by saying that, according to Kant, pure general logic constitutes "a universal framework in which all inquiry must take place" (Bohnet, 2014, p. 39). Or, to adopt a different formulation of Bohnet's, pure general logic determines which thoughts can be said to be "formally valid", and thus potentially truth-apt (Bohnet, 2014, p. 143). This contrasts with "transcendental logic"; according to Kant, pure general logic is set apart from transcendental logic by the fact that, while the former "abstracts ... from all content of cognition" (A55/B79) and considers the principles that structure thought apart from whatever its subject matter might be, the latter, transcendental logic, considers the rules of "the pure thinking of an object" (A55/B80). Transcendental logic considers the principles that must be followed if our thoughts are to have "objective validity", and thus relate to objects. These principles come in the form of the categories, the *a priori* concepts of the faculty of the understanding. As Bohnet puts it, the rules of transcendental logic must be followed if our thoughts are to be about objects, making the categories, qua principles of transcendental logic, "the conditions of possibility for the determination of material truth" (Bohnet, 2014, p. 129).

In the conclusion of the first part of his book, Bohnet's main suggestion is that Kant's two kinds of logic should be seen as being simultaneously homogeneous and heterogeneous. His claims here can be, very briefly, understood as

Homogeneity: Both pure general logic and transcendental logic are necessary conditions of the possibility of human cognition.

Heterogeneity: Pure general logic and transcendental logic "take up cognition from distinct starting points" (Bohnet, 2014, p.143).

Based on *Heterogeneity*, Bohnet further suggests that there is no direct route between the principles of transcendental logic and pure general logic (Bohnet, 2014, p. 127). It is not entirely clear what Bohnet would take such a direct route to be, but, very roughly, the thought seems to be that there is no direct way in which either of the sets of principles could be derived from the other. Instead, Bohnet's suggestion is that there is, at best, an "indirect" or "circuitous" route between the principles of the two kinds of logic (Bohnet, 2014, pp. 127-128). Yet it is not at all clear that Bohnet has good reason for suggesting that there is no direct route between the principles of pure general logic and the principles of transcendental logic. For one, it is not immediately obvious that *Heterogeneity* has any bearing on whether or not there is a direct way in which the principles of either kind of logic could be derived from the other: that the two kinds of logic "take up cognition from different starting points" entails nothing of the sort. For another, even if we allow that Heterogeneity supports his suggestion, Heterogeneity runs counter to significant work in recent Kant scholarship, which gives us independent reason to reject it.

Whilst Bohnet might be right in emphasising that pure general logic and transcendental logic have a different subject matter - after all, pure general logic abstracts from all content of cognition, whereas transcendental logic does not – this does not give him the required support for *Heterogeneity*. This is because, as various commentators have claimed (cf. Longuenesse, 1998; Wolff, 1994), the crucial point for Kant's purposes is that the principles of both of Kant's kinds of logic have the same source, the functions of the faculty of the understanding. Bearing this in mind enables us to appreciate that Kant thinks of pure general logic

and transcendental logic as deriving their principles from the same source. Kant's derivation of the principles of the two kinds of logic can thus be understood as starting from the same point: an analysis of the functions of the understanding. The argument in favour of this claim is simple. Its first premise is that Kant thinks of the principles of pure general logic as an expression of the rules that structure human mental activity (or, as Kant would put it, "the functions of the understanding"); its second premise that Kant thinks of the principles of transcendental logic too as an expression of the functions of the understanding. These two premises give us premise three, namely that the principles of pure general logic and transcendental logic are both expressions of the functions of the understanding. This puts us in a position to see why, pace Bohnet, and in line with various other commentators, we should not endorse *Heterogeneity*: after all, pure general logic and transcendental logic can "take up cognition" from the same starting point, i.e. the functions of the understanding.

To see the appeal of our first premise, it is helpful to consider a point made by, among others, Longuenesse. According to Longuenesse, for Kant and many of his contemporaries, the principles of pure general logic are an expression of the rules that structure human mental activity, or in Kantian terms, the functions of the understanding (Longuenesse, 1998, p. 5, 27). In the Metaphysical Deduction, Kant offers a table that, he suggests, contains an exhaustive list of the functions of the understanding, which are involved in acts of judgement, in effect offering an account of the principles of pure general logic (A70/B95). The important thing to note is that Kant's reason for offering this table of the functions of the understanding, which are involved in judgement, i.e. the principles of pure general logic, seems to be that "the functions of the understanding can [...] be found all together if one can exhaustively exhibit the functions of unity in judgements" (A69/B94). This

suggests that Kant is committed to a view about how one can come to know "the functions of the understanding" on which one can come to know the functions of the understanding by looking at "the functions of unity in judgements", i.e. the principles of pure general logic. Though it is not clear how this is supposed to work, the appeal of this view becomes somewhat clearer if we recall that, according to Longuenesse, Kant took "the functions of unity in judgement", the principles of pure general logic, to be an expression of the functions of the understanding. So, the idea is, we can learn something about the functions of the understanding by looking at the principles of pure general logic: we can learn something about the source by looking at its expression.

In support of our second premise, we can enlist Kant's claim in the remainder of the Metaphysical Deduction that the principles of pure general logic and those of transcendental logic ultimately rest on the same set of functions of the understanding (A79/B105). Thus, even though the principles of transcendental logic, the categories, are responsible for synthesizing the manifold of intuition into a representation of an object, Kant's suggestion in the Metaphysical Deduction, at least according to Longuenesse (1998, p.27), is that the rules of synthesis, i.e. the principles of transcendental logic, rest on the same set of functions of the understanding as do the principles of pure general logic.

Given our first and second premise, however, it becomes difficult to see the appeal of *Heterogeneity*. Kant's suggestion in the Metaphysical Deduction is clearly that the principles of the two logics are not heterogeneous. Both sets of principles ultimately rest on the same functions of the understanding, which means that pure general logic and transcendental logic take up cognition from the same starting point: the functions of the understanding. Of course, many of Kant's claims in the Metaphysical Deduction are contentious, but Bohnet does not engage with these claims, nor

with the sizeable literature on the topic. This leaves the central claim of the first part of Bohnet's book unmotivated; his discussion does not address the claims discussed here at all, leaving the reader with the question of why we should adopt Bohnet's 'circuitous' route between the two kinds of logic when there does not seem to be any good reason for rejecting the view that Kant could take a direct route between them.

Even if we were to adopt Bohnet's "circuitous" route, however, some of Bohnet's claims seem to run counter to those of Kant. One of Bohnet's claims, for instance, is that the problem of relating the two kinds of logic only arises because human cognition is discursive, rather than intuitive. Bohnet suggests that this claim is made plausible by the idea that we would have no need of pure general logic if we were intuitive intellects (Bohnet, 2014, p. 129). Given this, the problem of relating the two kinds of logic would not arise. The difficulty with Bohnet's appeal here is, however, that his characterisation of the intuitive intellect misses the mark. As Bohnet is right to emphasise, for Kant, an intuitive intellect is one that need not be given objects by means of sensory experience, as humans do, but which produces its objects of cognition in the act of cognizing them (Ak. 5:402-403).² What Bohnet does not consider, however, is that nothing in this characterisation of the intuitive intellect suggests that it would not be bound by the principles of pure general logic: rather, it seems plausible that it would still, despite being an intuitive intellect, need to comply with, for instance, the principle of non-contradiction. Moreover, that Kant held the view that an intuitive intellect is, in fact, bound by the principles of pure general logic is strongly suggested in some of his pre-critical writings on modality. In *The only* possible argument in support of a demonstration of the existence of God, for example, Kant suggests that in order for some entity to be possible, it must be consistent with the

² All references to the *Akademie Ausgabe* are to Kant (1902).

principles of pure general logic (cf. Chignell, 2009, p. 171). This point would seem to naturally extend to considerations about what entities an intuitive intellect would be able to cognise. While such an intellect would be capable of producing objects by representing them, it not only seems uncharitable to suggest that Kant held the view that such an intellect would be able to produce contradictory objects such as square circles, but also inconsistent with Kant's own claims to the effect that logical possibility is a necessary condition for the metaphysical possibility of an entity. Given this, it is not clear why Bohnet would rely on the idea that Kant held an intuitive intellect to be such that it is not subject to the principles of pure general logic.

Similar difficulties affect Bohnet's discussion of Hegel. In his discussion of The Science of Logic, for instance, Bohnet claims that one of the most revolutionary of Hegel's claims in the *Logic* is that the principles of logic are also the principles of metaphysics (Bohnet, 2014, p. 200). But it is not immediately clear what is novel about such an identification: Wolff, to name but one influential figure in classical German philosophy, equally saw the principles of logic as having significant metaphysical import (cf. Anderson, 2015, chs. 3-4). Moreover, Bohnet ultimately has little to say on the close, and arguably crucial, relation between Kant's claims in the Metaphysical Deduction and Hegel's project in The Science of Logic. As Houlgate, for instance, notes Hegel saw Kant's derivation of the categories in the Critique of Pure Reason as wholly inadequate: Hegel, on Houlgate's interpretation, suggests that Kant uncritically derived the categories from the principles of pure general logic, without giving any deduction of the principles of pure general logic themselves (Houlgate, 2006, p. 14; Hegel, 1999, §42). On this interpretation, The Science of Logic is meant to offer a derivation of the categories qua basic concepts of thought, which Hegel found to be absent from Kant's Critique of Pure Reason (cf. Houlgate, 2006, pp. 24-

28). Yet while Bohnet correctly emphasizes that the way in which the *Logic* offers a derivation of the categories is novel insofar as it turns on allowing thought to develop itself dialectically, i.e. by attempting to determine its own categories and finding that in doing so it is necessarily led to further categories, he ultimately says very little about how this method allows Hegel, in contrast to Kant, to offer a critical derivation of the categories. This is all the more surprising given Bohnet's suggestion that, for Kant, there is no direct way in which the principles of transcendental logic can be derived from the principles of pure general logic. As we have seen above, Bohnet's suggestion, as he himself spells it out, stands in need of further motivation, which, importantly, Bohnet might have been able to provide by closer consideration of both Kant's argument in the metaphysical deduction as well as Hegel's critique of it in the Logic.

Finally, while Bohnet's *Logic and the Limits of Philosophy in Kant and Hegel* offers a rich discussion of a variety of topics relevant to Kant and Hegel scholarship, it has distinct flaws. The wide reach of Bohnet's text leaves many of his most important claims underdeveloped and in need of further explication. However, readers new to Kant and Hegel's respective philosophical projects will find that Bohnet's monograph offers a useful overview of the relation between logic and philosophy in the work of Kant and Hegel.

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