Book Review

Huaping Lu-Adler. Kant and the Science of Logic: A Historical and Philosophical Reconstruction. Oxford: Oxford University Press. 2018.

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Notwithstanding its title, this book is not about the science called "logic"—at least, not insofar as "science of logic" refers to the rules, procedures, and guiding principles that constitute the laws of thought. While Huaping Lu-Adler often refers in passing to logical operations such as syllogisms, she never discusses their rules of operation. She does mention the law/principle of (non)contradiction eight times and that of identity once (p. 14); yet these all appear in quotes or side-comments. (She never mentions the law of excluded middle.) Similarly, she limits her treatment of potentially relevant post-Kantian developments in logic to a few brief glosses on Boole and Frege (pp. 3, 195–7), without referring to propositional logic, fuzzy logic, dialetheism, etc. However, this is all by design, so prepared readers need not be surprised by such omissions. Indeed, as the author announces in the Introduction and repeatedly reminds her readers, the book's focus is on "the philosophy of logic" (pp. 3–4), not on the mechanics of how logical relations *as such* actually function.

The Introduction acknowledges that historians of logic have typically either defined logic narrowly and therefore found nothing new—and thus little worth writing about—in Kant and other Enlightenment philosophers, or else they have followed Kant's immediate predecessors by defining logic in a broader sense than we do nowadays and have therefore written voluminously on the views of "logic" advanced during this period, but in ways that relate very little to modern conceptions of logic. Lu-Adler aims to "find a middle ground" between these two approaches (p. 4) by focusing on four philosophical questions (p. 5):

(1) Is logic a science (*scientia*), instrument (*organon*), standard of assessment (*canon*), or mixture of these?
(2) If logic is a (theoretical) science, what is the subject matter that separates it from other sciences, particularly metaphysics?
(3) If logic is a necessary instrument to all philosophical inquiries, how is it entitled to this position? …
(4) If logic is both a science and an instrument, how are these two roles related?

To tackle these questions, Lu-Adler adopts the "history of philosophical problems" approach (see pp. 5, 9, 16)—a hermeneutic method that increasing numbers of Kant scholars have adopted in recent decades. A chief danger of this approach is that such interpreters sometimes get so bogged down in the (unending) task of tracing the historical roots of a great thinker's insights that readers (and sometimes the interpreters themselves) lose sight of the key insight(s) that made the hero of the story great in the first place. Lu-Adler's masterful contextualization of Kant's theory of logic mostly avoids this danger, but eventually succumbs to it as well.

Unlike some extreme contextualist interpreters, who essentially reduce the task of understanding great thinkers to the task of understanding their predecessors,[1] Lu-Adler admirably portrays her strategy more as a perspectival art, informed by Kant's own "conception of history" (p. 5), whereby reason sets the limits of an inquiry by imposing boundary-conditions upon it. She delimits her distinctive perspective for contextualizing Kant's philosophy of logic through three interrelated foci: defining a Kantian *methodology* for logic; situating Kant in the *history* of logic; and relating logic to Kant's *transcendental* philosophy (vi–vii).

Chapter one first introduces readers to various exegetical challenges facing anyone who sets out to interpret Kant's theory of logic—the chief one being that many details of Jäsche's edition of Kant's *Logic*, whose questionable authenticity Lu-Adler exposes, lack "independent and conclusive" corroboration in the other relevant primary source material (i.e., the transcripts of Kant's logic lectures, the notes Kant wrote in the textbooks he used, his other relevant unpublished reflections, and his students' lecture notes [p. 15]). Having expressed various "worries" about the reliability of these sources, Lu-Adler wisely suggests that "we can bracket" them and proceed "to reconstruct Kant's theory of logic" with her history-of-problems approach as a guide (p. 16). She then traces a recently neglected debate prevalent in Kant's youth, between "eclecticism" (represented by Christian Thomasius) and "the *systematic* method represented by Christian Wolff" (p. 19). While past interpreters typically assumed the young Kant could not have been an eclectic, Lu-Adler offers ample evidence (p. 23) that he was synthesizing Wolffian systematic (dogmatic) philosophy with "an eclectic procedure with distinctively Kantian characteristics." What she dubs "Kant's 'critical eclecticism'" focused on "a critical study of the history of ideas" that began early in Kant's career and continued throughout his life (pp. 23–24).

1 This hermeneutic approach alone is insufficient when interpreting the insights of a great innovator such as Kant because insights that *emerge* from a given historical context are not determinable from that context alone. See Palmquist (2007).

Following this tantalizing groundwork, Lu-Adler provides a two-chapter overview of pre-Kantian philosophy of logic. Chapter two focuses selectively on ancient and medieval theories, asking (among other topics) whether each of the various philosophers considered regards logic as a science. Beginning with Aristotle, Lu-Adler traces this history up to Wolff's immediate predecessors, including a few key non-European figures, such as Avicenna, but passing over many others. Such selectivity is understandable, given that she aims to trace traditions that influenced Kant, not to compile a comprehensive history of logic. Her fascinating overview unearths each philosopher's conception of what logic *is*, especially in relation to philosophy and/or metaphysics. In contrast to what Lu-Adler calls Kant's "completeness claim" (e.g., pp. xii, 2)—namely, his assumption that Aristotelian logic as it stood in Kant's day (which was essentially the same as it was in Aristotle's day) constitutes a *complete science* (see Bviii)—she demonstrates that Aristotelian logic was far from being universally regarded as complete *or* as science. Chapter three likewise covers theories of logic in the early modern period, up through Kant's immediate predecessors. Most significantly, Lu-Adler points out that Locke "challenges the view that the Aristotelian syllogistic is necessary to the proper use of our reason" (p. 69–70), leaving Leibniz to restore it by assigning a divine origin to syllogistic logic.

Chapter four examines Kant's own views on logic up to the mid-1770s, depicting his evolving position as a series of responses to the concerns of his recent predecessors, especially on logic's relation to ontology and psychology, and on its utility as an organon. Toward the end of this period, Kant reached one of his key revolutionary insights: what philosophers had traditionally called "ontology" can and should be treated under a new, *transcendental* type of logic, which differs from traditional (general) logic by incorporating cognition of objects. He also determined that the recent broadening of logic to include features of human psychology, though plausible for common/healthy understanding, was illegitimate for a *science* of logic.

Chapter five and a short Conclusion interpret and assess Kant's views from the first *Critique* onward. Lu-Adler persuasively reads Kant's understanding of his own task, in conducting a Critique of pure reason, as entailing a thoroughgoing reassessment of the philosophy of logic inherited from his many predecessors. She rightly acknowledges (and frequently reminds her readers) that for the mature Kant *general* logic is a canon but not an organon. Surprisingly (though intentionally) absent from her exposition is any sustained account of Kant's distinction between analytic and synthetic methods—a distinction that can be traced back to Euclid and had its authoritative presentation in the *Port-Royal Logic*. Lu-Adler mentions the latter work several times, portraying it as a manual for the Cartesian tradition, but regards a detailed treatment of method as beyond the scope of this

book (pp. 120–121, 210).[2] This choice strikes me as an unfortunate lacuna, because Kant himself—for better or worse—repeatedly relates transcendental logic to the need to follow either an analytic method (e.g., in *Prolegomena* and *Groundwork*) or a synthetic method (e.g., in the *Critiques*), depending on the requirements of his architectonic (see Palmquist 1993, especially Chapters III-IV).[3]

Rather than focusing on such issues, Chapter five, Lu-Adler's definitive statement of Kant's mature philosophy of logic, begins by reiterating two breakthroughs Kant had already achieved by the mid-1770s: distinguishing common/healthy from learned understanding; and distinguishing general logic from transcendental logic by transforming traditional ontology into the latter. A key feature of her assessment of the first *Critique* is that, given the wide range of divergent views that his predecessors held about the nature and function of logic, Kant's assumption that Aristotle's general logic constitutes a complete science called for justification. Indeed, probably this book's most radical (and controversial) argument is that the general features of Kant's philosophy of logic, when viewed in their historical context, *should have prompted him* to conduct a full-fledged Critique of logic. After considering the meagre options for doing this that were at his disposal, however, Lu-Adler concedes (p.201) that Kant "might not be in a position to offer a definitive proof for the correctness or completeness of his (Aristotelian) system of formal logic."

Lu-Adler's bold claim neglects Kant's stated reasons for taking Aristotle's general logic as a complete, *a priori science* that needs no philosophical justification. Kant would need a Critical account of how general logic itself is possible only if and insofar as he regarded it (improperly) as *organon*. Indeed, the reason Kant insists that *transcendental* logic does need Critique is that its complete systematic presentation *would* function as an organon (see A11/B24-25). That is, as long as pure reason remains bounded by general logic, merely applying the laws of thought to the formal structure of our language—as long as reason resists the temptation to go beyond these boundaries in an attempt to construct objective knowledge—general logic is *already established* as a bona fide science. Only when it goes beyond the mere analysis of consistent thought processes and reaches out to objects (what Kant calls *Gegenstände* in intuition) does logic stand in danger of the subreption that Kant unmasks in the Dialectic. We avoid dialectical illusion by tracing knowledge-claims back to an origin in human sensibility; general logic

2 Similarly, Lu-Adler says "the objective of logic" is to present "a theory of truth" (pp. 101–102), yet she merely assumes (p. 136; see also p. 150) that Kantian "truth" means "the agreement of cognition with its object." Detailed attention to Kant's texts would show that he holds both the correspondence and coherence theories of truth, *depending on the context*.

3 Fortunately, (Love 2018) effectively fills this lacuna.

causes no such illusion provided it remains limited to human understanding, avoiding knowledge-claims (e.g., avoiding logic's extension to psychology). As such, Kant did not attempt a Critique of logic precisely *because* of his completeness claim: his system of transcendental philosophy does not require a Critique of logic for the same reason it does not require a defense of Euclidean geometry or Newtonian physics; in each case, the Critical philosopher's task is not to *establish* the a priori validity of these sciences but to *justify* it, by explaining how transcendental logic, as "the self-cognition of reason" (pp. 183, 188ff), demonstrates the *possibility* of such sciences. Challenging these established sciences themselves by questioning their legitimacy cannot be construed as a Critical task.

Kant's writings offer ample textual evidence to support my contention here and to cast serious doubt on Lu-Adler's tantalizing suggestion—too much to rehearse comprehensively in a short review. Nevertheless, a few examples of key passages that Lu-Adler's selective contextualization leads her to neglect should suffice to establish my point. In the last footnote of the short Introduction to the third *Critique*, Kant observes that critics had expressed "suspicion" over the fact that "my divisions in pure philosophy almost always turn out tripartite" (5:198n, Pluhar's translation). He responds by appealing to the *factual* status of general (architectonic) logic: "Yet that is the nature of the case." He then explains that all *a priori* distinctions must be either synthetic or analytic, and that, just as every *analytic* division must be "bipartite" because "it is governed by the principle of contradiction" (a fact Kant *assumes* his readers will accept), so also all *synthetic* divisions "must of necessity be a trichotomy" due to the need for a "synthetic unity" that transcends analytic duality. This much-neglected footnote, taken together with Kant's explicit claim that logic since Aristotle has followed the "secure path" of a science, so that "it has not needed to retrace a single step" (Bviii, Pluhar's translation), strongly suggests that, when Kant appeals to Aristotle in the first chapter of the Analytic of Concepts and says "our aim is fundamentally the same as his, even though it greatly deviates from his in its execution" (A80/B105), Kant is defending precisely the position I have outlined above, that although Aristotle's *categories* require Critique (the task of transcendental logic), Aristotle's *general* logic (which establishes the formal structure of architectonic systemization; see Palmquist 1993) does not.

Lu-Adler's impressive contextualization of Kant's position actually sheds significant light on what Kant means in the latter passage: by treating the categories as if they were on an even par with the laws of general logic, Aristotle had conflated two sciences that Kant clearly distinguishes for the first time, general logic (the science of the laws of thought when our thinking is *detached* from objects) and transcendental logic (the science of the laws that guide our thinking when it is *attached* to objects). Unfortunately, Lu-Adler's attention is so firmly fixed

on the *context* of Kant's contribution to the history of the philosophy of logic that she does not seem to recognize the full implications of her own insight. Kant accepts Aristotle's *general* logic as a complete science *for the laws of thought* (as such), which therefore stands in no need of Critique; yet he significantly revises Aristotle's theory of the categories because these relate to *transcendental* logic, which *does* require Critique.

By far the lasting value of this book is not any insight it may convey regarding the details of how the science of logic *operates*—as Lu-Adler laments at one point, "the devil is in the details" (p. 144)—but the book's fascinating demonstration that, at virtually every turn in his mature philosophy, Kant's use of the word "logic" presupposes and responds to his historical predecessors. Time and again, Lu-Adler masterfully shows how aspects of Kant's theory that are likely to perplex the historically uninformed reader (such as Kant's insistence that logic is not an organon) are actually contributions to centuries-old debates. Ironically, this book's greatest strength—it's truly impressive detail regarding the positions on logic defended by Kant's predecessors—is also its greatest weakness. I have illustrated this by highlighting several key details of Kant's position that Lu-Adler omits or only briefly glosses, even though they are essential to Kant's account of how logic actually *functions*. Had she attended more to the intricate relation that holds for Kant between logic and (architectonic) method, perhaps her book's readers would have been better equipped to see that sometimes, devilish though they may seem, *God* is in the details.

References

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