

KANT ON LOGICAL FORM

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Most philosophers today assume what Kant might have called a ‘material’ conception of logic. According to the material conception, the laws of logic obtain independently of our consciousness of them, because they are either objective ‘laws of truth’, laws governing linguistic practices, or laws innate to our cognitive capacities. But it is often overlooked that this view of logic faces intractable difficulties in providing an adequate explanation of how these laws govern the mind. (Both rationalist and empiricist attempts to offer an explanation have been made.) The material conception immunizes logic from these problems, since it assumes that they do not concern *logic*, but merely concern epistemological views about what it is to have *knowledge* of logic.

In this dissertation I argue that Kant avoids the epistemological difficulties because he has a ‘formal’ conception of general logic, according to which logical operations and rules articulate self-consciousness in any exercise of the understanding. That is, they are not rules or *procedures* for generating intellectual acts (such as judgments), nor are they *products* of intellectual acts. Instead, they bring to (self-) consciousness the necessity (or ‘necessary synthetic unity’) in the *activity* of the understanding itself. Logical cognition thus is not material cognition of that which is distinct from our cognition of it, but instead is formal cognition, or cognition that

any act of cognition has of *itself*. I argue that we cannot fully appreciate these points if we assume an ‘analytic approach’ to Kant’s logic, according to which logical operations consist in mere acts of *comparison* (or analysis) of representations. General logic must primarily concern itself with the understanding’s acts of *synthesis* in cognition, acts that are directed at an inner *telos* or purpose (namely, systematic unity in the whole of cognitions). Kant’s conception of logical form thus invokes an organic notion of ‘form’ that is linked to the teleological structure of our cognitive capacities.

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PREFACE

In working on this dissertation, I have spent almost as much time trying to understand Kant as I have spent trying to understand my advisors, Stephen Engstrom and John McDowell. If I have succeeded in understanding any one of them, it has only been in virtue of understanding the others. And if I have understood anything in philosophy at all, I think it has been because I have understood at least one of these philosophers. I am immensely grateful to them for giving me a sense of what it is important to understand.

The initial project was inspired by John McDowell's non-hybrid account of knowledge in "Knowledge and the Internal", a paper to which I have returned on several occasions while writing this dissertation. I am very grateful to John for listening to my fumbling attempts to articulate a thought in the beginning phases of writing my dissertation, and for sometimes formulating the thought for me. I never left his office without something new and important to think about.

My greatest intellectual debt is to Stephen Engstrom, whose seminar on judgment and papers on Kant's theoretical philosophy (especially "Understanding and Sensibility") set me on my present course of research. Steve has helped me over the past few years in more ways that I can hope to express here. My debt to him is blatant on every page of this dissertation. I am grateful to him for his kind support and encouragement, his patience, and for the countless hours he spent discussing my work. Steve's refusal to skip any steps in the progress of a thought, even

under duress, has taught me a great deal about intellectual integrity. Most of all, I am grateful to Steve for getting me to appreciate the fundamental principles of his philosophical system, since I believe that these principles will have a lasting influence on my pursuits in philosophy.

Sebastian Rödl's seminar on self-consciousness was one of those events in Pittsburgh that changed my entire way of thinking about philosophy. His written works have had a huge influence on what I think. I thank Robert Brandom for his comments on my project, which have always been encouraging, even when critical. I hope that, at some later stage of this project, I will be able to meet his challenges. I am thankful also to Nicholas Rescher and Karl Schafer for their comments in the final stages of my dissertation.

I will always have fond memories of the incredible community of graduate students in Pittsburgh. Markos Valaris never grew tired of getting me to think more clearly by refusing to accept anything I said until I could provide an argument that he would have given himself. He graciously read drafts of the chapters in this dissertation and offered insightful comments on all of them. I am also grateful to Lissa Merritt, who got me to think more about various issues through our written dialogue. I have learned a great deal from sessions of Steve- and Kant-exegesis with Ian Blecher, and I look forward to many years of exchange with him about all things philosophical. Numerous conversations with Evgenia Mylonaki have helped me to see that all of us are really working on the same project. Her wit and love of life made the dreary winter months in Pittsburgh bearable, and I don't know how I would have survived without her moral support. I have also been helped over the years by conversations with Alp Aker, Greg Strom, Dan Addison, Kohei Kishida, Susanna Schellenberg, Matthew Boyle, Jeremy Heis, Hille Paakkunainen, Jennifer Frey, Chris Frey, Vaheh Shirvanian, Tyke Nunes, and many others in Pittsburgh.

The summers of 2007 and 2008 were spent in Germany, where I had the opportunity to present the first stages of my work in the colloquiums at Heidelberg and Tübingen. I am thankful to the audiences there for their comments, especially to Andreas Schmidt, Markus Gabriel, Mike Stange, and Anton-Friedrich Koch.

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I spent the last few months completing the dissertation in the excellent philosophy library at the University of Heidelberg, Germany. I am extremely grateful to Anton Koch for his help in making those months in Heidelberg possible and for the many discussions we had about my project, in which we agreed to disagree.

By far my greatest personal debt is to Jochen Bojanowski, whose support throughout my turbulent years in graduate school has surpassed the 'mean' of generosity. He has urged me to think more clearly, to be more precise in my use of language (both English and German), and to stand on my own two feet. It would not be an exaggeration (or 'croc') to say that this dissertation, and my completion of graduate school, were things we accomplished together.

NOTES ON SOURCES AND ABBREVIATIONS

References to Kant's *Critique of Pure Reason* contain page numbers from both the A (1781) and B (1787) German editions. All other references to Kant's writings are cited using the relevant volume and page number from the standard "Akademie" edition of Kant's works: *Kants gesammelte Schriften*, edited by the Königlich Preussischen (now Deutschen) Akademie der Wissenschaften (Berlin: G. Reimer [now de Gruyter], 1902-).

The following abbreviations are used:

- Anth.* *Anthropologie in pragmatischer Hinsicht* (1798). (Ak. 7) Translated by Mary Gregor, under the title *Anthropology from a Pragmatic Point of View*. The Hague: Martinus Nijhoff, 1974.
- A* "Beantwortung der Frage: Was ist Aufklärung?" (1784). (Ak. 8) Translated by Mary Gregor, under the title "An Answer to the Question: What is Enlightenment?". Cambridge Edition of the Works of Immanuel Kant, *Practical Philosophy*. Cambridge: Cambridge University Press, 1996.
- Blomberg* *Logik Blomberg* (from the 1770s). (Ak. 24) Translated by J. Michael Young. Cambridge Edition of the Works of Immanuel Kant, *Lectures on Logic*. Cambridge: Cambridge University Press, 1992.
- Busolt* *Logik Busolt* (1790). (Ak. 24)
- D-W* *Logik Dohna-Wundlacken* (from the early 1790s). (Ak. 24) Translated by J. Michael Young. Cambridge Edition of the Works of Immanuel Kant, *Lectures on Logic*. Cambridge: Cambridge University Press, 1992.
- FS* *Die Falsche Spitzfindigkeit der vier syllogistischen Figuren* (1762) (Ak. 2). Translated by D. Walford in collaboration with Ralf Meerbote under the title "The False Subtlety of the Four Syllogistic Figures". Cambridge Edition of the Works of Immanuel Kant, *Theoretical Philosophy 1755-1770*. Cambridge: Cambridge University Press, 1992.
- G* *Grundlegung zur Metaphysik der Sitten*. (Ak. 4) Translated by Mary Gregor, under the title *Groundwork of the Metaphysics of Morals*. Cambridge Edition of the Works of Immanuel Kant, *Practical Philosophy*. Cambridge: Cambridge University Press, 1996.
- HL* *Logik Hechsel. Logik-Vorlesung: Unveröffentlichte Nachschriften II*, ed. Tillman Pinder (Hamburg: Felix Meiner, 1998). Translated by J.

- Michael Young. Cambridge Edition of the Works of Immanuel Kant, *Lectures on Logic*. Ed. J. Michael Young. Cambridge: Cambridge University Press, 1992.
- ID* *De mundi sensibilis atque intelligibilis forma et principiis*. (Dissertatio) (1770) (Ak. 2). Translated by D. Walford in collaboration with Ralf Meerbote under the title “On the Form and Principles of the Sensible and the Intelligible World [Inaugural Dissertation]”. Cambridge Edition of the Works of Immanuel Kant, *Theoretical Philosophy 1755-1770*. Cambridge: Cambridge University Press, 1992.
- JL* *Jäsche Logik* (1800). (Ak. 9). Translated by J. Michael Young. Cambridge Edition of the Works of Immanuel Kant, *Lectures on Logic*. Cambridge: Cambridge University Press, 1992.
- KpV* *Kritik der praktischen Vernunft* (1788). (Ak. 5) Translated by Mary Gregor, under the title *Critique of Practical Reason*. Cambridge Edition of the Works of Immanuel Kant. Cambridge: Cambridge University Press, 1997.
- KrV* *Kritik der reinen Vernunft* (first (A) edition, 1781 (Ak. 4); second (B) edition, 1787 (Ak. 3)). Translated by Paul Guyer and Allen W. Wood under the title *Critique of Pure Reason*. Cambridge Edition of the Works of Immanuel Kant. Cambridge: Cambridge University Press, 1997.
- KU* *Kritik der Urteilskraft* (1790). (Ak. 5) Translated by Paul Guyer and Eric Matthews, under the title *Critique of the Power of Judgment*. Cambridge Edition of the Works of Immanuel Kant. Cambridge: Cambridge University Press, 2000.
- LP* *Logik Philippi* (1772). (Ak. 24)
- MFNS* *Metaphysische Anfangsgründe der Naturwissenschaften* (1786) (Ak. 4). Translated by Michael Friedman, under the title “Metaphysical foundations of natural science”. Cambridge Edition of the Works of Immanuel Kant, *Theoretical Philosophy after 1781*. Cambridge: Cambridge University Press, 2002.
- MH* *Metaphysik Herder* (1762-1764). Translated by Karl Ameriks and Steve Naragon. Cambridge Edition of the Works of Immanuel Kant, *Lectures on Metaphysics*. Cambridge: Cambridge University Press, 1997.
- MM* *Metaphysik Mrongrovius* (1782-1783). Translated by Karl Ameriks and Steve Naragon. Cambridge Edition of the Works of Immanuel Kant, *Lectures on Metaphysics*. Cambridge: Cambridge University Press, 1997.
- MP L1* *Metaphysik Pölitz* (Ak. 28). Translated by Karl Ameriks and Steve Naragon. Cambridge Edition of the Works of Immanuel Kant, *Lectures on Metaphysics*. Cambridge: Cambridge University Press, 1997.
- Metaphysics of Morals* *Metaphysik der Sitten* (1797) (Ak. 6). Translated by Mary J. Gregor. Cambridge Edition of the Works of Immanuel Kant, *Practical Philosophy*. Cambridge: Cambridge University Press, 1996.
- NE* *Nova Dilucidatio* (1755) (Ak. 1). Translated by D. Walford in collaboration with Ralf Meerbote under the title “A New Elucidation of

- the First principles of Metaphysical Cognition”. Cambridge Edition of the Works of Immanuel Kant, *Theoretical Philosophy 1755-1770*. Cambridge: Cambridge University Press, 1992.
- On a Discovery* “Über eine Entdeckung, nach der alle neue Kritik der reinen Vernunft durch eine ältere entbehrlich gemacht werden soll.” (Ak. 8) Translated by Henry Allison, under the title “On a Discovery, According to which Any New Critique of Pure Reason Has Been Made Superfluous by an Earlier One,” in *The Kant-Eberhard Controversy*. Baltimore: The Johns Hopkins University Press, 1973.
- P* *Prolegomena zu einer jeden künftigen Metaphysik, die als Wissenschaft wird auftreten können* (1783) (Ak. 4). Translated by Gary Hatfield under the title “Prolegomena to any future metaphysics that will be able to come forward as a science”. Cambridge Edition of the Works of Immanuel Kant, *Theoretical Philosophy after 1781*. Cambridge: Cambridge University Press, 2002.
- R* Reflexionen (Kants handschriftlicher Nachlaß) (Ak. 14-19).
- Religion* *Die Religion innerhalb der Grenzen der bloßen Vernunft* (Ak. 6).
- VL* *Wiener Logik* (from the early 1780s). (Ak. 24) Translated by J. Michael Young, under the title “Vienna Logic”. Cambridge Edition of the Works of Immanuel Kant, *Lectures on Logic*. Cambridge: Cambridge University Press, 1992

1.0 INTRODUCTION

1.1 OVERVIEW

There is a widespread consensus among contemporary philosophers that Kant's general logic, which he took almost entirely from Aristotle and declared to be, to all appearances, "finished and complete" (Bviii), is an embarrassing concession to scholastic philosophy that should either be amended or politely ignored. The logic Kant said was "complete", philosophers assume, has been superseded by the more powerful system of polyadic and quantificational logic. From its lofty heights we are in a position, as Kant was not, to view Aristotle's logic as limited and in some respects even confused. Many interpreters of Kant do not take this assessment to be devastating, since they think that logic plays a merely peripheral role in his philosophy. The real substance of Kant's thought comes to the fore only in his transcendental logic; its dependence on Aristotelian logic can be severed without much damage to the rest of his philosophy.

My project in this dissertation is to show that, contrary to these assumptions, Kant's general logic is an immensely rich and illuminating source of insights into the most basic and indispensable elements of his philosophy. Kant builds the entire edifice of transcendental philosophy on the foundations of general logic. A study of his logic is thus essential to an understanding of his project. Kant's logic also has the potential to awaken contemporary philosophers out of their dogmatic slumber with respect to their views on the aims and purposes

of logic, the nature of logical laws, and the role of these laws in our thinking. I aim not only to interpret Kant's views on general logic as they appear in his published critical works and as they are reported in the transcripts of his logic lectures, but also (more ambitiously) to suggest that Kant's way of thinking about logic, once it is appreciated, may shake the very foundations on which much of contemporary philosophy is built.

The dissertation is divided into three main chapters corresponding to the sections of Kant's logic: on concepts, judgment, and inference. These belong to the "doctrine of elements", or the study of the logical elements of cognition. I have excluded a discussion of the "doctrine of method", which expounds the way for attaining *scientific* cognition. I begin, in this introduction, by presenting a preliminary argument for Kant's view that the logical rules of thinking can be understood as *normative* rules (in the proper sense) only if they are rules governing the exercise of our capacity to understand and reason. This argument is meant to support Kant's claim – which to contemporary ears will have the ring of psychologism – that logic is an *a priori* study of exercises of our *cognitive capacity*. Each of the following chapters attempts to show how Kant conceived of this capacity, and how he could treat it as a logical origin of concepts, judgments, and inferences.

1.2 WHAT IS LOGIC?

Before we approach the various sections of Kant's general logic, it is essential that we first ask what, in his view, logical inquiry is. Failing an answer to this question, we cannot assess his logic on its own terms, but instead risk subjecting it to standards that Kant may have had reasons

to reject. A first clue to Kant's understanding of logic is his claim that logic is a "science of the necessary laws of the understanding and of reason in general" (JL 9:13).¹

There is a way of hearing this claim that would meet with widespread acceptance. It might be read as meaning simply that logic is a science of the necessary laws in accordance with which we understand (or judge) and reason. No philosopher will deny that discursive thinkers think in accordance with logical laws, laws that constitute the subject-matter of logic. But the context of the passage suggests not only that we understand and reason in accordance with logical laws, but that logical laws are themselves laws of the mental activities of understanding and reasoning. For Kant has just explained that the understanding, like everything else in nature, is "bound in its actions to rules" (JL 9:11). Just as "fish in water" or "the bird in the air" move according to rules, so also our thinking and cognizing occurs in accordance with logical rules, rules that belong to the nature of these activities as exercises of a cognitive capacity.²

Most philosophers today would not accept this description of the subject-matter of logic, since they typically assume what Kant might have called a 'material' understanding of logic. According to the material understanding, logic is concerned with laws and operations that articulate the relations between thoughts, relations that obtain independently of the mental activities through which we think or judge those thoughts. This has been the dominant attitude toward logic ever since Frege's attack on psychologism. Frege, in his *Begriffsschrift*, argued that we must think of operations like 'universal' and 'particular' quantification, and 'negation', as applying not to the *act* of judging or thinking, as in Aristotelian logic, but to "judgeable content"

¹ One should be careful about taking the *Jäsche Logic*, which was put together from Kant's notes, to be a reliable statement of Kant's views. On the whole, I have found the content of it to be compatible with and supported by Kant's published writings, and by what he was reported to have said in his other logic lectures. (See Young's introduction to the *Lectures on Logic*.)

² This notion that logical laws are laws governing our cognitive capacities appears in many places throughout Kant's logical lectures: LH 24:3, Blomberg 24:20, LP 24:311, LP 24:502, WL 24:790, Busolt 24:608, D-W 24:693.

(§4). Negation, for instance, is not denial (a distinct quality of judgment), but an operation that produces contents that can be affirmed or judged. For other operations, like the categorical, hypothetical, and disjunctive forms of judgments (forms of relation), Frege could find “only grammatical significance” (ibid.). They characterize ways in which ordinary language operates, but they have nothing to do with the objective contents of thoughts.³ The reason Frege abandons the traditional concern with acts of the intellect in favor of objective contents was that he wished to distinguish the discipline of logic from the empirical discipline of psychology, and to purge logic of its dependence on the workings of ordinary language. Whereas psychology is concerned with the ways in which subjects happen to think, logic is concerned only with “laws of truth” or relations among *objective* contents to which our thinking as such *ought* to conform.⁴ Many philosophers, with Frege, believe that the normativity of logic *requires* this objective conception of its subject-matter.

But it is often overlooked that this view of logic, as concerned with mind-independent relations among contents of thoughts, faces intractable difficulties in explaining how these laws come to have a grip on the mind. Two kinds of answers to this question have been proposed, and may be described as ‘rationalist’ or ‘empiricist’ in character. Philosophers with rationalist sympathies may argue that our grasp of logical laws or ‘laws of truth’ is made possible by a special faculty of non-empirical or *rational* intuition. But it is notoriously mysterious what this could mean. To avoid this problem, a rationalist might instead propose that there is a preestablished correspondence between the laws of thought and the laws of truth, because we are

³ See Longuenesse 2006, pp. 158ff. for a more elaborate discussion of the differences between traditional and Fregean logic.

⁴ Frege suggests that the laws of logic are maximally general and substantive laws of truth in the *Grundgesetze* (xv) and “Logic”. (See Ricketts, p. 123f. and Goldfarb, pp. 28-29.) It is possible that one can trace this development of logic in the late 19th century back to Hegel, who maintained that logical relations are real or objective, rather than subjective. Hegel criticized Kant’s separation of “pure general logic” from “transcendental logic” as a remnant of subjective philosophy (although, unlike Frege, Hegel still retained a role for the ‘subject’ in logic).

innately programmed to think in accordance with the latter. But then they will be laws of thinking simply because I *cannot help* but think as the laws prescribe. As Kant would say, they will lack the kind of “necessity that is essential to their concept” – namely, the necessity that I think in accordance with them *from a consciousness that I ought to* think in accordance with them (B168).

Other philosophers have taken a more pragmatic and empirical approach to the source of logical norms. According to this approach, we learn which logical rules govern our thinking through observation of *applications* of these rules. This need not mean that knowledge of logical rules rests on empirical psychology, or on observation of a single subject’s acts of thinking. Some philosophers have also taken logical knowledge to be knowledge from observation of the linguistic practices of giving and asking for reasons in a community. The empirical approach to logic, like the rationalist approach, does not manage to capture the peculiar kind of *necessity* that belongs to the rules and principles of logic. We may acquire from repeated observations a habit or disposition to think in accordance with logical rules, but then the necessity that we think in accordance with them will not have its *source* in our consciousness that we *ought* to do so. The ‘necessity’ thus will not be of the right sort: we are determined *passively* to think in this manner by the effect of repeated observations on the mind. There are many places in Kant’s work where this critique of empiricism comes out. In the sections preceding the Transcendental Deduction, Kant cautions against deriving the categories from experience, since this would not show us with what *right* we think as we do (KrV A95/ B127). A similar note of caution appears in the Introduction to the *Jäsche Logic*, in which the author emphasizes that logic is a *normative* science concerned not with “how we do think, but how we ought to think” (JL 9: 14).

It is sometimes said that the problems faced by ‘rationalist’ and ‘empiricist’ approaches to logic are not problems for the *logician*. The problems may be fixed, it is suggested, not by changing their conception of *logic*, but by revising their epistemological views about our *knowledge* of logic. Whereas empiricists and rationalists can only account for judging *in accordance with* logical rules, such that it remains (in a certain sense) accidental that our acts of judging happen to be logical, a proper epistemic account would enable us to say that judging rationally occurs only *from knowledge* of those rules, and hence in necessary agreement with them (in the proper sense of ‘necessary’). For instance, one might argue that thinking or judging *presupposes* some (at least implicit) antecedent knowledge of logical rules, because these rules are constitutive of our capacity to think and judge; our intellectual activity would not be an activity of judging if we did not seek to think in accordance with rational norms. The issue here is not understood to be a logical one, but merely concerns the manner in which logical knowledge is *applied* in our thinking. But notice that this view *presupposes* a ‘materialist’ understanding of logic in the above sense. For if the logician can have knowledge of the logical rules independently of knowing the way in which they govern acts of thinking, they must be distinct from, or external to, these acts of thinking. That is, they are rules that I may or may not accord with in my thinking, when I am trying to make up my mind about what to think. This view thus collapses into a version of rationalism: logical rules turn out to be innate rules constitutive of my capacity that I may gain epistemic access to in some manner *prior* to the exercise of the capacity. But then we are left with a version of the same question as above: what explains why I exercise my capacity as I *ought* to? For on this view, knowledge of the logical rules is not sufficient for producing acts of thinking that accord with them. Something more is needed for explaining why thinkers are rational.

Each of the above views beg the question about the domain of logic by assuming a material understanding of logic, according to which logical rules are *external* to, and independent of, consciousness of them in judging and inferring, lying either in a Platonic realm of objective truth, or in the empirically accessed world of discursive practices, or in the innate constitution of our cognitive capacities, which we may gain epistemic access to independently of the *exercise* of those capacities. They each presuppose a view that dictates a strict distinction between logic on the one hand and psychology or epistemology on the other.

The above approaches thus overlook Kant's alternative conception of *logic*, according to which logical rules are *inseparable* from our consciousness of them in the mental activities of conceiving, judging, and inferring. Logic is not concerned with articulating a *method* or *procedure* for *generating* rational judgments through the exercise of our rational capacities. Nor is it about the structures of *products* of reasoning that are distinct from the mental activity of reasoning. Instead, logical rules articulate the *self*-consciousness in the activity of judging or reasoning itself. For instance, the categorical function of judging is an act of combining a subject-concept with a predicate-concept in such a way that it is determined or necessary that one concept serves as a subject, and the other concept as a predicate. The *necessity* of the act of judging in this manner, such that the opposed way of judging is *excluded*, is unintelligible apart from my consciousness that this concept *should* be thought of as subject, and not as predicate. Otherwise the necessity would not be 'of the right sort', as we've seen. And conversely, my consciousness that I should think of one concept as subject, and not as predicate, is not intelligible apart from my consciousness of the necessity of judging in this manner. Otherwise the rule would not be an inner rule for the exercise of my spontaneous capacities (but would instead – at best - belong to the external conditions or constraints under which the capacity can

be exercised). My consciousness of the logical rule thus is not a separate act of consciousness, appended to the act of judging S is P , but rather is identical with the necessity (or determinacy) in the act of judging itself; it is thus a consciousness that is identical with that of which it is conscious, or articulates *self*-consciousness in the act of judging.

Thus, rather than assuming that my thinking must conform to objective or innate logical laws, as on the rationalist view, Kant makes the much more preliminary assumption that intellectual activity must conform to (or agree with) *itself*: “Logic shall teach us the right use of the understanding, i.e. the one that agrees with itself” (JL 9:14). Self-agreement in an act of the understanding consists in the agreement of the act with the unitary, necessary activity of the understanding that constitutes the unity of the act. And rather than taking its rules from empirical observations of their applications, Kant’s logic instead investigates those rules whose application rests on our consciousness of the rules. Logic cannot “borrow principles [...] from experience”; rather its principles are to be found “in oneself [*a priori*]”, and “apart from all psychology” (ibid.; see KrV A54/B78). By avoiding both rationalist and empiricist approaches to logic, Kant also avoids their pitfalls: there is no problem of showing how our thinking can be made to conform to logical rules and principles, since the latter are principles that have their source in the understanding, and hence that govern all exercises of our capacity to think. And there is no danger that we have merely described how we in fact think, if our acts of thinking themselves are intelligible only in light of *a priori* standards in accordance with which we ought to think.

Kant’s logic thus shows that, contrary to contemporary dogma, an answer to empirical psychologism does not dictate a strict division between logic and psychology. Indeed, it suggests that logic *must* concern itself with mental activities to overcome the dualism of logical rules and our consciousness of them that plagued the empiricist and rationalist views. Kant’s claim that

logic concerns not how we in fact think, but how we should think, can be seen to be compatible with his claim that it concerns laws of thinking if we appreciate the sense in which norms of thinking ‘govern’ the mind: they are norms in accordance with which the understanding, under ‘normal’ conditions, operates, but they govern its acts only through *consciousness* of them.

Kant’s answer to empirical psychologism does rest on the possibility of a non-empirical or *a priori* investigation of the mind, which many contemporary philosophers will not accept without some resistance. Kant himself did not consider the possibility of an *a priori* ‘psychology’ or study of the mind to be in need of argument. He took it to be self-evident that a study of the mind will be radically different from empirical investigations into the capacities and forces of nature, since he took it to be evident that we can, indeed must, become conscious of the operations of our cognitive faculties through these operations themselves, and independently of being *affected* by them. That is, the mind is conscious of its own thinking through spontaneity or *self-consciousness*, rather than through receptivity or consciousness of something *other* than it.⁵

Whereas we discover what is *possible* for natural things through prior observation of what is *actual* for them, what is possible *for the intellect* can be known prior to affection by its acts, and hence *a priori*:

To cognize something *a priori* means to cognize it from its mere possibility. But the possibility of determinate natural things cannot be cognized from their mere concepts; for from these the possibility of the thought (that it does not contradict itself) can certainly be cognized, but not the possibility of the object, as a natural thing that can be given outside the thought (as existing). (MFNS 4: 470).

From the mere concept of a natural thing, one can cognize the possibility of the thought of that thing, but not of the thing. But with respect to the *understanding*, cognition of the possibility of thought is the *same* as cognition of the understanding (as a capacity to think). So from the mere

⁵ This is implied in Kant’s characterization of general logic as “formal philosophy” (vs. “material philosophy” or metaphysics) at G 4:387.

concept of the understanding one *can* have (formal) cognition of its *possibility*. And since one can formally cognize the acts or functions of the understanding through the understanding alone (independently of being affected by them), the mere concept of the understanding also enables us to acquire insight into its *acts* or functions. General logic is the *a priori* study of the understanding, because it is an investigation into the understanding's capacities and activities from its *mere concept* (which, as we'll see, is the <I think>).⁶

Logic is thus concerned with thinking as an act of a capacity, and not with the contents of thoughts, which for Kant do not exist independently of the acts of the understanding through which we think or judge them; in fact, Kant maintains that there is no logically structured thought at all when there is no act of thinking it. His logical functions of judgment are not structures of objective contents, but rather "forms" in an Aristotelian sense: form (*eidos*) as activity (*energeia*). Since we have insight into these activities prior to our being affected by them empirically (or in time), we do not need to think of them as activities that belong only to my empirically determined subject. Indeed, we shall see that Kant thinks of these activities as *universal* (shareable) activities that belong to discursive thinkers as such (just as the activities that belong to the Aristotelian form of man as such are universal and shared by all men).⁷ Since we have cognition of the understanding from its mere concept, we can cognize *a priori* the rules that govern *all* of its operations, or that are *universally valid* in a "strict" sense, and not merely valid in relation to all hitherto observed acts. The *apriority* of logic also enables us to cognize that these rules are "necessary without qualification, for every purpose and without regard to any particular objects of thought" (JL 9:12). For we know that they belong to the general concept of

⁶ In this dissertation, I will use angle brackets (< >) to indicate that I mean to be speaking of a concept, not of a word. Judgments will be enclosed in single quotation marks " ".

⁷ There are limits to this analogy with Aristotelian substances, since Kant would reject any inference from *formal*, logical cognition of the acts of the intellect to *material*, metaphysical conclusions about its nature.

the understanding as such, and hence that all acts of the understanding, simply as acts of this power, ought to be in accordance with them.

1.3 LOGIC AS A SCIENCE

Kant's view of logic as concerned with the activity of thinking, insofar as it has its origin in a capacity to think that is governed by inner standards of correctness, was not without precedence in the history of logic. Kant had inherited a conception of the discipline according to which it is concerned with the intellect's activities or "functions" – whether in conceiving, judging, or inferring. Aristotelian logic, for instance, inquires into the rules of intellectual acts such as predicating, which is said to be a "combination" (*sunthesis*) of a noun and a verb (*de Int.* 16a9-18), and syllogism, or combination of predications (*sun - logoi*) (*An. Pr.* 24a11). The more contemporary *Port-Royal Logic*, on which the logic textbooks of Kant's own day were based, states that logic "consists in reflections that have been made on the four principal operations of the mind: *conceiving, judging, reasoning, and ordering*" (Arnauld and Nicole, p. 23). Despite these common features, Kant thought that traditional logic, although largely impeccable, is "not yet quite free from defects" (P §39). In his only published work on logic, *Die falsche Spitzfindigkeit der vier syllogistischen Figuren* (1762), he criticized the traditional doctrine of the four figures of categorical syllogisms. And he often remarked that traditional logic did not give sufficient attention to hypothetical and disjunctive judgments and syllogisms.

But Kant's most serious and far-reaching complaint against traditional logics is its lack of systematicity. In the *Progress* essay, Kant suggests that previous philosophers would have come up with a system of categories if they had had, at their disposal, a *system* of logic:

these concepts [the categories] could well have been drawn up into a systematically ordered table, if what logic has to teach concerning the formal diversity of judgments had previously been put into the framework of a system (20:271).

What Kant is missing in traditional logics is an account of what *unifies* all of the different operations of the mind. What is it that unifies conceiving, judging, and inferring, along with the different ways in which we judge and infer? What is the common *source* and purpose of each of these activities? Logic cannot become a system and hence a science without a common principle (*archē*) from which all of the activities of the understanding spring forth. Otherwise, logic remains a rhapsodic collection of functions of the understanding, taken arbitrarily from disparate sources, without the systematic unity of genuine, rational (scientific) cognition. It was for lack of a common principle that Aristotle's list of categories arose "rhapsodically", by "groping about" [*herumtappen*] for pure concepts (A81/ B106-107).⁸ From this we can see that the status of logic as a science under a common principle is crucial to Kant's overall project in transcendental philosophy. For if general logic is not a science, or a systematic body of knowledge of the understanding's activity, then transcendental logic is not one either. It is only on the basis of our formal rational cognition of the intellect that we can hope to discover the foundations of a new, critically informed science of metaphysics (*material* rational cognition) that is unified under a single principle. If we excise general logic from the critical system, we risk the collapse of the entire edifice.

Kant does not describe his discovery of a common principle for a logical system as an easy task. In a rare autobiographical note, he says that he began in the absence of any principle "whereby the understanding could be fully surveyed and all of its functions, from which its pure

⁸ The *Port Royal Logic* also does not raise the question of a common principle. It states that "nature alone furnishes" us with operations of the mind "in giving us reason", but it contains no discussion of what unifies these operations, or in what way reason might be considered to be their common source (Arnauld and Nicole, p. 23).

concepts arise, determined exhaustively and with precision” (P §39; 4:323). But he was led on the path to the discovery of this principle by focusing on the activity of the mind that is most fundamental of all:

In order, however, to discover such a principle, I cast about for an act of the understanding that contains all the rest and that differentiates itself only through various modifications or moments in order to bring the multiplicity of representation under the unity of thinking in general; and there I found that this act of the understanding consists in judging (ibid.).

Judgment is the most fundamental activity of the understanding because judging is cognizing [*Erkennen*], and all acts of the understanding have cognition as their *telos* or purpose.⁹ But now we need to ask: what *unifies* a judgment? Whence does it receive its unity? If we can answer this question, we will have discovered the highest principle from which all activities of the understanding spring forth. Kant states his answer in the Transcendental Deduction:

the synthetic unity of apperception is the highest point to which one must affix all use of the understanding, even the whole of logic and, after it, transcendental philosophy; indeed this faculty is the understanding itself (B134n.).

Only the synthetic unity of apperception, universally represented by the ‘I think’, can provide the principle that unifies all of the activities of the intellect, permitting us to ascertain what belongs within its sphere and what does not, and to gauge the relevance of the parts for the realization of the purpose of the whole. What Kant’s predecessors lacked was an appreciation of the role of the synthetic unity of apperception, which he here identifies with the understanding as a faculty, in making logic systematic.

Kant’s discovery of this principle is linked to his attempt to replace a more traditional account of the understanding as a capacity to *analyze* and *abstract* by a conception of the understanding as a capacity to *combine*. And yet Kant also thought that much of traditional logic

⁹ One might think that this leaves out ‘inferring’. But Kant thinks of inference as a kind of judgment, namely as mediate judgment: “when one judges mediately, one draws an inference” (FS 2:59).

could be incorporated into a logic that is founded on the new *synthetic* conception of the understanding. By discovering the synthetic unity of apperception as the principle and source of all activities of the intellect, Kant prepared the path to his Copernican Revolution in *transcendental* logic. For it is this *synthetic* conception of the understanding that enables Kant to say that the understanding does not conform to the objects of cognition, as a mere capacity to analyze or abstract from what is given to it, but instead that the objects conform to our understanding, and to its functions of synthesis.

It may at first seem that introducing the conception of a *synthetic* capacity into general logic threatens to collapse the distinction between general and transcendental logic. It is true that both ‘logics’ concern the norm-governed activities of the intellect, and both acknowledge self-consciousness (the original synthetic unity of apperception) to be the unifying principle of those activities. But whereas general logic investigates the self-consciousness of acts that have their source in the understanding alone, transcendental logic is concerned with the self-consciousness of acts of the understanding in its cooperation with sensibility. This powerful cooperation of the understanding and sensibility constitutes the *material* use of the understanding in relation to objects and equips the understanding with the “concept of an object in general”, which is entirely absent from general logic. The former self-consciousness, I will argue, is what Kant calls the “*original-synthetic* unity of apperception”, whereas the latter self-consciousness of the understanding in its material use is what he calls the “*objective* synthetic unity of apperception”. Since general logic has at its disposal no other source than the understanding, each of the functions of understanding must spring from the original-synthetic unity of apperception alone, without taking any clues from sensibility or from the “concept of an object in general”.¹⁰

¹⁰ Kant says that the categories “spring [*entspringen*] pure and unmixed from the understanding” (A67/ B92). It does

Most interpreters take this claim to be too radical, and too preposterous, to be Kant's real view. How could the sage of Königsberg have thought that the 'I think', which he says is an entirely empty representation, is a logical source of concepts, of a plethora of logical functions, and of different kinds of inference? From the side of analytic philosophy, commentators have rejected the role of self-consciousness in logic and relegated its talk of the mental 'activity' of synthesis to what Strawson called the "imaginary subject of 'transcendental psychology'" (Strawson 1966, p. 97). From the side of German idealism, Kant's ambition to determine all of logic through the 'I think' has been acknowledged, but also ridiculed. In Hegel's assessment, Kant's logic was corrupted by its own pretense of formality and ultimately succumbed to empirical resources in its discovery of the logical functions: "Kantian philosophy... *borrow*s the categories, as so-called root notions, for the *transcendental logic*, from the subjective logic in which they were adopted empirically" (*Logik II*, trans. p. 613; p. 44). That is, Kant's general logic fell prey to the very kind of 'rhapsodic' procedure that he had criticized in his Aristotelian predecessors.

In the following three chapters, I will attempt to answer both sorts of criticism by showing how it is possible to think of concepts, judgments, and inferences as having their source in the 'I think', understood as a capacity of cognition. As I'll argue, an appropriate understanding of the 'I think' will reveal that it is not an empty form that is indifferent to the materials that enter it, but a form of *synthetic* cognition that rests on the suitability of the materials for their form. My answer to Kant's critics will not be complete; in particular, it will not provide a proof

not seem quite right to speak of a *derivation* (*Ableitung*) of the logical forms or functions from the understanding (nor does Kant speak that way), since any derivation proceeds from the general to the particular and must rely on *Urteilstkraft*. General logic only concerns itself with the understanding (*Verstand*) as a faculty, and so can only concern the self-activity of this capacity. Its reflective, analytic procedure allows it to find the universal in the particular, but not to derive (synthetically) the particular from the universal.

of the completeness of the table of functions of judging. But I hope that it will clarify why Kant's conception of the understanding is powerful enough to make the prospects of such a proof look promising.

2.0 CONCEPTS

In the opening passage of the “Clue to the Discovery of all Pure Concepts of the Understanding”, Kant says that discursive cognition is “cognition through concepts” (B93; cf. A230/ B283). If we wish to understand Kant’s conception of discursive cognition, we must first clarify his concept of a concept. My purpose in the first section of this chapter is to explain *what concepts are*. Kant addresses this question in his logic by asking about the “logical form” of a concept. For the purposes of the first section, this can be understood to mean that he is asking about the *definition* of a concept, or what it is that distinguishes concepts from other kinds of representation. I argue that the various descriptions of concepts that we find scattered throughout his logical works all amount to a single account, according to which concepts are distinguished from other kinds of representations by being *general* representations. In the second section, it will emerge that the generality that constitutes the “logical form” of any concept is the generality of the faculty of understanding itself (i.e., of the <I think>). Concept-*formation* is thus an act whereby representations are brought to the generality of the understanding through the understanding’s acts of *self-consciousness* or “logical reflection”.

2.1 WHAT IS A CONCEPT?

A natural place to begin is Kant's discussion of what concepts are. Kant offers several seemingly unrelated characterizations of concepts, some of which involve a helpful contrast with non-conceptual representations, or *intuitions*:

(1) concepts are *general* representations (*repraesentatio per notas communes*), in contrast with intuitions, which are singular (*repraesentatio singularis*) (JL §1)

(2) concepts are *reflected* representations (*representatio discursiva*) (JL §1)

(3) concepts are *clear* [*klare*] representations, or representations with consciousness, whereas intuitions are *obscure* [*dunkel*] (JL 9:33)

(4) concepts are *partial* representations or “marks” [*Merkmale*], in so far as they are considered as a “ground of cognition” [*Erkenntnisgrund*] for a whole representation (JL Intro. VIII)

(5) concepts are *mediate* representations, in contrast with intuitions, which are *immediate* (KrV B377)

(6) concepts are “predicates of possible judgments” (A69/B94)

(7) concepts are *rules* for the synthesis of representations (KrV A106)

Kant does not deny that there is a purely *formal* difference between intuition and concept that can be dealt with in general logic. The distinction between sensibility as a faculty of *intuition*, and the understanding as a faculty of *concepts*, he says, is a “*logical* distinction” (JL 9:36). But general logic abstracts from the *origin* of intuitions and concepts, or from the way in which intuitions are made possible by affections, and concepts arise from functions (see A68/B93). For this reason, the distinction between sensibility as a faculty of *receptivity* and the understanding as a faculty of *spontaneity* is said to be *metaphysical*, not *logical* (JL 9:36).

General logic concerns only the difference between intuition and concept as different kinds of *representations* of objects (as different ‘acts’), rather than considering the different ways in which these acts are brought about.

The definition of a concept as a *general* representation from §1 of the *Jäsche Logic* characterizes it through its “form” or logical nature – leaving aside its matter, or what it is a general representation of:

The matter of concepts is the *object*; their form is *generality* (JL §2).

This suggests that the *generality* of concepts and *singularity* of intuitions is a formal, logical distinction. To say that the concept is a general representation (1) is to say that it is conscious of itself as a “mark” [*Merkmal*] or “partial representation” [*Teilvorstellung*] (4) that is common to, and makes up a part of, lower representations contained under it. All concepts are marks, but not all marks are concepts. Marks are *not* concepts when they are not “*reflected* representations” (2), or when I am not conscious of them *as* marks of various representations. For instance, in my apprehension of trees I may be conscious [ich *merke*] that they have trunks (since this may belong as a partial representation to my perceptions of trees), without recognizing that having a trunk is a mark of trees.¹¹

Kant thus glosses the *generality* of a concept through its *reflected* character. On the face of it this gloss is puzzling. It may be granted that I do not possess a general representation simply in virtue of my representations sharing something in common with one another; generality of *representation* requires that I am also *conscious* of this commonality through reflection.¹² But

¹¹ Kant says that cognizing “through marks” is “called *Erkennen*, which comes from *Kennen*” (JL 9:58). An unreflected mark is a kind of noticing or acquaintance (*Kennen*); only through reflection does it become cognition (*Erkennen*).

¹² Kant seems to think that if a representation is given, it must be singular, and if it is reflected, it is general. (See letter to M. Herz, May 26, 1789.)

although reflection is thus a necessary condition of the generality of a concept, it is a further step to say that the generality of a concept *just is* its reflected character (for instance, one might think that singular representations are also reflected). In the next section of this chapter we will return to Kant's claim that reflection, the act through which I bring representations to the <I think>, just is an act of bringing them to *concepts*.¹³

What does it mean to be conscious of a mark *as* a mark of various representations? Two things are involved here: first, I must be conscious of the mark as a *partial* representation that belongs to a *whole* representation of a thing, and second, I must be conscious of the mark as *shared* by different representations. That is, I must be conscious of the mark as a representation both (1) *contained in* and (2) *common to* a manifold of representations. The second requirement corresponds to consciousness of the "external use" of a mark, i.e. to that use whereby different things falling under a concept are compared with one another, to determine how they differ or agree (JL 9:58, VL 24:836). The first requirement corresponds to consciousness of its "internal use", which "helps us to see the manifold in" a single object (VL 24:836). It does not suffice, for possession of a concept, that I can reliably classify objects or distinguish objects of different kinds on the basis of marks used in mere "external comparison". I must become conscious of the mark as a mark contained *within* the whole representation of the object. That is, possession of the concept requires consciousness of the *internal* use of a mark.

To be conscious of the internal use of a mark is to be conscious of its use as a "ground of cognition", or as a ground through which I cognize or *understand* something (cf. JL 9:58). The general mark <tree>, for instance, serves as a "ground of cognition" of my perceptions of spruces

¹³ Generality applies not only to concepts, but also to feeling or sensibility (see, for instance VL 807, KU 5:211ff.). Even here, generality has its source in pure apperception. But aesthetic (as opposed to logical) generality does not involve the notion of a *logical* sphere or sphere of possible relations to objects, and since it is of less interest to my project, I will ignore it here.

and willows because it enables me to understand *what these things are* (the converse does not hold: perceptions of the spruce and willow do not serve as a ground for cognizing what it is to be a tree).¹⁴ Since cognition is an act of judging, consciousness of the internal use of a mark is tantamount to consciousness of its use in judgment. Kant sometimes refers to judgment as a “distinct concept” (FS 2:58, D-W 24:762, R3129), by which he means that it involves consciousness of the “manifold that is contained in” the concept (JL 9:34). Judgment is a distinct concept because it is a single representation of a *combination* of various marks or concepts: it involves consciousness of the whole and of the parts contained within it. So I am conscious of a mark as a part of a whole representation (i.e., *as* a mark of it) through consciousness of the mark as an element used in judgment. Beings that cannot judge may be able to classify objects into kinds through marks, since they can externally compare things with one another with respect to their similarity and difference, but they cannot become conscious of those marks *as marks* (partial representations) of those things, and hence do not have concepts:

The distinctness of a concept does not consist in the fact that that which is a characteristic mark of the thing is clearly represented, but rather in the fact that it is recognized as a characteristic mark of the thing. The door is something which does, it is true, belong to the stall and can serve as a characteristic mark of it. But only the being who forms the judgment: this door belongs to this stable has a distinct concept of the building, and that is certainly beyond the powers of animals (FS 2:59).

The brutes are conscious of the door, and can distinguish it from other marks belonging to the representation of the stall, but they are not conscious of the door *as* a mark of the whole

¹⁴ According to Stuhlmann-Laeisz, the character of concepts as partial representations is in tension with their character as grounds of cognition. But this tension is apparent only in his reading of Kant – for he takes a concept to be a ground of cognition [*Erkenntnisgrund*] only of that which is contained *within* the concept. That is, it is a ground of cognition only of the partial representations [*Teilvorstellungen*] contained in it. But then concepts can ground only analytic cognitions. This, according to Stuhlmann-Laeisz, contradicts Kant’s claim that concepts are grounds of cognition of *all* representations in which they figure as partial representations (Stuhlmann-Laeisz, pp. 89-91). However, there is no such contradiction, because Kant does not – with regard to discursive concepts - use the term *Erkenntnisgrund* in the narrow, analytic sense Stuhlmann-Laeisz is referring to.

representation of the stall. The mark can become a concept, reflected representation, or “ground of cognition” only for a being that can use the mark in the *judgment* ‘this stall has a door’.

Kant makes essentially the same point when he describes concepts as “mediate representations” (5): concepts relate to objects only “mediately, by means of a mark [*Merkmal*], which can be common to several things” (A320/B377).¹⁵ This claim also appears in the *Metaphysical Deduction*, where Kant clarifies that concepts relate to objects not only through the mediation of *general* marks (concepts), but also through the mediation of marks belonging to (conscious) intuition: “[a concept is] never immediately related to an object, but is always related to some other representation of it (whether that be an intuition or itself already a concept)” (A68/B93). In order to understand this passage it is crucial that we look more closely at its context. Kant’s argument here moves subtly from a conception of the understanding as a faculty of *concepts* to the understanding as a faculty of *judgments*. This move is motivated by the thought that concepts *alone* do not relate to objects. Concepts only relate to objects through the *mediation* of other representations in a judgment. We thus obtain the definition of judgment as “the mediate cognition of an object, hence the representation of a representation of it” (ibid.). The ‘mediation’ at issue here involves a *descent* from higher representations to lower ones: from the genus “divisible” to the species “body”, and from this to “certain appearances that come before us” (ibid.).¹⁶ Kant’s point is not that concepts relate to objects by being combined with intuitions in a judgment (since he nowhere suggests that intuitions themselves can be subjects of judgments), but rather that the relations among concepts in a judgment also involves the

¹⁵ Since “mittelbar” is used in the German as an adverb, I have corrected the Guyer/Wood translation, which uses the English adjective “mediate”.

¹⁶ Thus, contrary to those interpretations of mediacy according to which a concept is a mediate representation because it relates to a sphere of objects only through the marks (partial concepts) contained *within* it, I maintain that a concept is mediate because it relates to objects only through the subsumption of other representations contained *under* itself in judgment. This, as I’ve argued, requires consciousness of what is contained within those lower representations (but not of what is contained in the higher one).

subsumption of marks of intuitions (lower representations) under concepts (higher representations). Concepts thus only relate to objects through the mediation of lower representations subsumed *under* them in judgment. A representation of a body is “a concept only because other representations are contained under it by means of which it can be related to objects” (A69/B94).

We can now appreciate why Kant also mentions “discursivity” in the *Logic* as a gloss on the “reflected” nature of concepts (2). A concept does not contain anything through which it could *immediately* relate to an object, but must “go out and run about” (*discurrere*) in search of *another* representation that extends *beyond* it in order to relate to objects.¹⁷ That is to say, an intellect that employs *concepts* can relate to objects only through combination with another concept in synthetic judgment (only through its “determination” by another concept) – this is what makes it a *discursive* intellect.

As we noted above, Kant thinks that consciousness of the “internal use” of a mark – i.e., its use in judgment – is “of greater importance” than its “external use”: “For if I cognize the thing from within, then these marks will certainly suffice for external use, although this latter does not suffice for internal use” (VL 24:836). Consciousness of the internal use of a mark in judgment involves consciousness of a *capacity* to judge. This is already sufficient to ground the general applicability of the mark (to different things) because the capacity itself is general: it has a range or sphere of application.¹⁸ So the character of concepts as “predicates of possible judgments” (5) or as “mediate representations” is no different from their logical nature as

¹⁷ Like much else, I have acquired this understanding of discursivity from Stephen Engstrom.

¹⁸ The external use of the mark is not sufficient for its internal use, because external comparisons need not rest on possession of a capacity to judge.

general representations that have a sphere [*Sphäre*] or extension [*Umfang*].¹⁹ If “generality” thus represents the ‘extensional’ aspect of self-consciousness (i.e., consciousness of the ‘external use’ of a mark), “clarity” (3) may be taken to represent its ‘intensional’ aspect. A concept is a clear representation because it involves consciousness of its internal use in judgment.²⁰ This way of thinking about clarity is corroborated by Kant’s distinction between two types of “clear representations”: those that are distinct and those that are indistinct. An indistinct, but clear representation involves consciousness of the “whole representation” (the *unity* of the concept), whereas a distinct representation also involves consciousness of the “manifold that is contained in it”, namely the marks of the concept that make up its intension or content [*Inhalt*] (JL 9:34, see JL 9:95f.). For instance, I possess an indistinct, but clear concept of dogs if I am conscious of its use in judgment, but cannot specify the marks that belong to something’s being a dog. I possess a distinct concept when I can specify the criteria that enable me to recognize (in judgment) that certain things are dogs.

Kant’s characterization of concepts as *rules* (7) may at first seem to fit nicely within the overall logical conception of concepts as general representations. For by a *rule* we might mean ‘what *regularly* or *generally* happens’ – as when we say that ‘as a rule, the clock strikes at noon’. Or we might mean the general features that regulate the ‘blind’ syntheses of the imagination in

¹⁹ Kant’s discussion of mediacy may invite the thought that what makes a concept universal is not that it represents universals (hypostasized as the ‘objects’ of concepts), but that it represents particulars through the mediation of lower representations in judgment. This would be a very strong reading of the idea that universality characterizes the form of a concept, but not its content. However, we will see further below that the content of concepts – i.e. that which is represented – is in itself universal. Contrary to nominalist interpretations of Kant, I will argue that acknowledging this does not commit one to thinking that universality belongs to the matter, rather than to the form, of concepts.

²⁰ In several passages, like the one cited above, Kant says that concepts are clear representations. Kant’s use of the term here is absolute, and can be contrasted with ‘obscure’ in the sense of *blind* (as in: “intuitions without concepts are blind”). However, Kant also uses the terms “clear” and “obscure”, like “distinct” and “confused”, in a relative, not absolute way. Consciousness or clarity may have degrees, so it is possible that some *concepts* are (in relation to others) “obscure” (see LP, 24:536, WL 24:840ff., D-W 24:702).

perception (e.g., among children or savages). But notice that in this sense of ‘rule’ concepts are not mere rules; for they are not merely uniformities, but rather involve *consciousness* of uniformity, or *recognition* of “sameness” [*Einerleiheit*] in difference.²¹ In those passages where Kant says that *concepts* are rules, we should hear him as saying that they are rules accompanied by explicit consciousness of themselves as such (A106; see also A722n./ B750n., A723/B751).²²

²¹ I take the broad sense of ‘rule’ to be implied in Kant’s claim that the characterization of the understanding as a “faculty of rules [...] is more fruitful, and comes closer to its essence” (A126): only if “rule” is taken broadly to include not only concepts, but also functions of the understanding operative in the blind syntheses of the imagination, does this claim make any sense. For his point in this passage is to contrast this characterization of the understanding with those he previously gave – namely, “faculty for thinking, or a faculty of concepts, or also of judgments” (ibid.). Unlike the latter, which are restricted to what he will later call *intellectual* syntheses of the understanding, the “faculty of rules” is broad enough to include *figurative* and empirical syntheses, which, unlike intellectual syntheses, can be found in the appearances. Hence the understanding is said here to be “always busy poring through the *appearances* with the aim of finding some sort of rule in them” (A126; my emphasis).

²² Longuenesse reads these passages as indicating that Kant uses the term ‘concept’ for rules governing syntheses of sensible manifolds in intuitions prior to our consciousness of those rules, and hence prior to discursive representations. Thus we would need to distinguish between two senses of ‘concept’: in one sense, the concept is “a universal representation formed by the discursive acts of comparison, reflection, and abstraction”, and in another sense concept is “the (clear or obscure) consciousness of the unity of an act of synthesis, and moreover, of the synthesis of a *whole*”. Longuenesse cites a passage from the A-deduction in support of this second reading of ‘concept’ (Longuenesse 1998, p. 46):

If, in counting, I forget that the units that now hover before my senses were successively added to each other by me, then I would not cognize the generation of the multitude through this successive addition of one to the other, and consequently I would not cognize the number; for this concept consists solely in the consciousness of this unity of the synthesis.

The word “concept” itself could already lead us to this remark. For it is this one consciousness that unifies the manifold that has been successively intuited, and then also reproduced into one representation. This consciousness may often only be weak [...]; but regardless of these differences one consciousness must always be found, even if it lacks conspicuous clarity, and without that concepts, and with them cognition of objects, would be entirely impossible (A103-104).

According to Longuenesse, “this one consciousness” in the second paragraph refers back to the “concept” in the last sentence from the first paragraph. However, this same “one consciousness”, which unifies a sensible manifold and may lack “conspicuous clarity”, is then said to be necessary for the possibility of “concepts, and with them cognition of objects”. Longuenesse takes this to indicate a difference in two senses of ‘concept’: one, from the previous paragraph, means “consciousness of the unity of synthesis”, and the other, at the end of the second paragraph, means reflected or discursive representation used in judgment and cognition of objects.

However, it is not clear that more than one concept of ‘concept’ is needed to make sense of this passage. For “this one consciousness” in the second paragraph may refer back to the “consciousness of unity of synthesis” in the previous paragraph without referring to *clear* consciousness of unity of synthesis or the *concept*. This is suggested by Kant’s claim that the role of this consciousness of unity is to unify the manifold that has been intuited, and that it as yet “lacks conspicuous clarity” and hence is not a concept. What Kant wishes to say here is that functions of the understanding may be found in the perceptions that *precede* concepts, since without these functions “concepts, and with them cognition of objects, would be entirely impossible”. What distinguishes concepts from functions of this kind is merely that they are “clear”, or bring to *explicit* consciousness this *implicit* consciousness of synthetic unity. As we have seen, it is ‘clarity’ that Kant thinks of as correlative with the ‘general’ or ‘reflected’

That is, they are rules that guide the capacity to judge through our consciousness of them, rather than rules that lack consciousness of themselves *as rules* of a capacity.

How does the above elucidation of Kant's conception of generality help us understand the contrast between generality and singularity of representation? At first glance an answer may seem straightforward: Concepts are general because they represent "what is common to several objects" (JL §1n.1). They are representations of an *analytic* unity, of the One contained *in* the Many, whereas intuitions are representations of a *synthetic* unity, the One that contains the Many. However, this characterization is inadequate, since most concepts *also* represent synthetic unities; indeed, their content [*Inhalt*] is itself a synthetic unity. Moreover, most intuitions, which are singular rather than general representations, nevertheless also represent what is "common to many"; they are not mere synthetic unities, but are accompanied by consciousness of analytic unity.²³

The difference between generality and singularity of representation has more to do with the *relation* between analytic and synthetic unity. Concepts (*general* representations) represent analytic unity "by means of an antecedently conceived possible synthetic unity" (KrV B133n.). Intuitions (*singular* representations), on the other hand, represent a synthetic unity by means of an antecedent analytic unity. Concepts presuppose a possible *synthetic unity* because I cannot represent what is *common* to various red things, for instance, without an awareness of the possibility of combining the representation of "red" with various other representations in judgment: "I thereby represent to myself a feature that (as a mark) can be encountered in

nature of conceptual representations. (This point is merely terminological and does not impugn Longuenesse's main point that the consciousness of unity of synthesis must precede or "guide" syntheses of the imagination.)

²³ An exception will be made for *original* representations: the categories, as *original* concepts, are mere analytic unities that contain no manifold within themselves. And space and time, as *original* intuitions, are mere synthetic unities that are not accompanied by consciousness of what is common to further (possible) spaces and times.

anything, or that can be combined with other representations” (ibid.). Intuitions of objects, by contrast, *presuppose* (possible) consciousness of what various representations share in common; for the combination of a sensible manifold in an intuition does not come to us through the senses, but rather is an effect of a spontaneous act of the understanding that I can represent through a concept.

Unlike concepts, which relate to objects only through judgment, intuitions do not need to await judgment in order to relate to objects; judgment instead has the function of bringing what is already contained in an intuition to consciousness. Just as *mediacy* of representation is bound up with *generality*, *immediacy* of representation is inseparable from the *singularity* of intuitions; for a representation is immediate if its relation to the object is *not* mediated by a sphere of representations contained under it. An immediate representation is, as it were, a *logical point* lacking in logical quantity or magnitude (i.e., a representation without a sphere). Immediacy of representation thus should not be conflated with the role of *affection* in intuition; for although intuitions necessarily rest on affections, the *immediacy* of an intuition concerns only the manner in which it *represents* an *object*, and not the way in which it is brought about (as a representation) through affection.²⁴

This difference between intuitions and concepts corresponds to a difference in the ways in which they are both ‘synthetic unities’, or representations that contain a manifold of representations within them. An intuition of space or time is a synthetic unity because it contains a manifold of intuitions of smaller spaces or times within it. An intuition is a complex whole in this sense only if it is an “extensive magnitude”, in which “the representation of the parts makes

²⁴ In the literature on the immediacy of intuition, this identification of immediacy and singularity is most commonly associated with J. Hintikka, “On Kant’s Notion of Intuition”. However, I do not agree with Hintikka’s view of intuitions as singular terms, for reasons that will emerge later on. Singular judgments are not combinations of intuitions and concepts, but rather involve, as Kant says, the singular use of a concept (the subject-term).

possible the representation of the whole (and therefore necessarily precedes the latter)” (A162/B203). For instance, in drawing a line, one proceeds from the parts (line-segments) to the whole (the line). Intuitions are synthetic unities or wholes that can be divided because they are composed out of parts which are *prior* to the whole.

The content or intension (*Inhalt*) of a concept may also be viewed as a *synthetic* unity, since it is a unity that contains marks “within” it. But the “unity of the concept”, unlike that of an intuition, is a “qualitative unity”, which is *prior to* the marks contained in the concept rather than being composed out of them (B114). Kant does think that concepts can be analyzed or dissolved into the concepts (marks) that are contained in them, but analysis should not be understood as *division* of the whole.²⁵ When I analyze a concept, I do not divide the concept into atomic marks that are intelligible independently of the unity to which they belong; rather, the marks of a concept can each be understood *as marks* of it only by belonging to the indivisible unity of the concept that I *presuppose*. For instance, we do not understand the concept <tree> simply by understanding each of its marks in isolation: <having leaves>, <having a trunk>, <having branches>. There may be a sense in which things *other* than trees have leaves, branches or a trunk. We understand these marks *as marks* of the concept <tree> only if we can appreciate the special sense in which *trees* have leaves, branches, or a trunk. That is, the marks are intelligible *as marks* of this concept only in relation to the unity of the concept <tree>.

Since the concept always serves as a predicate in judgment, the unity of a concept is the unity of its *possible use* in judgments. So if I keep in mind the *possible* use of the concept <tree> in judgments – i.e., am conscious of my *capacity to judge* by means of this concept - then I can

²⁵ Thus, Kant says that in analysis “the whole precedes the parts” (JL 9:64). As Kant repeatedly emphasizes, abstraction is not to be understood as the abstraction of something out of a whole (“abstrahere aliquid”), but as the abstraction *from* other marks belonging to the same concept (JL 9:95). He wants to avoid thinking of abstraction as a kind of division.

become conscious of the marks of the concept <tree> *as marks* of that concept. This shows that the marks of a concept, for Kant, do not constitute a simple list of disconnected and isolated concepts. Rather, they are marks of a concept only because each of them contains the *unity of that concept* in common. The unity of the concept is not a unity *imposed* on independently given materials, but a unity that is *internal* to them as marks of that concept.

Kant later says that the “qualitative unity” of the concept in the above sense is a “simple” or *indivisible* unity.²⁶ When he speaks of the “logical division” of a genus concept into species concepts, he clarifies that *what* is divided is “not the concept itself”, but rather “the sphere of the concept”: “Thus it is a great mistake to suppose that division is the taking apart of the concept” (JL 9:146). The sphere of the concept, as we have seen, reflects the concept’s *analytic* unity, or that which is shared in common by a manifold of representations. So it is only the concept’s *sphere* (analytic unity), not the unity of the concept itself (synthetic unity), that can be divided.

The generality of a concept rests on consciousness of the possibility of its use in judgment. This reverses a standard view among contemporary philosophers that takes the generality or sphere of a representation to rest on the plurality of *objects* subsumed under a concept. Thus, some interpreters have dismissed Kant’s claim that singularity of representation is a sufficient mark of intuitions on the grounds that some concepts, most notably <God>, have application to only one object.²⁷ But the fact that some concepts only have singular *application* does not mean that they are not *general* or *discursive* representations, or that they do not reflect

²⁶ In the next chapter, we will see that Kant associates the “qualitative unity” of the concept with synthetic unity of apperception, which is a simple representation.

²⁷ See Kolb, p. 227. In the passage where Kant says that the concept <God> has only one single instance, he also mentions that the concept is “in itself universal” (A576/ B604). I take this to mean that the concept is a general or discursive concept, and not an intellectual intuition.

what is common to a manifold of possible representations. The confusion here rests on a confusion between the *concept* and its *use*. As Kant says,

It is a mere tautology to speak of universal [*allgemeinen*] or common [*gemeinsamen*] concepts – a mistake that is grounded in an incorrect division of concepts into *universal*, *particular*, and *singular*. Concepts themselves cannot be so divided, but only *their use* (JL 9:91).

The distinction between *capacity* and *act* (which is essential to a discursive intellect) would collapse if the concept does not reflect a *general* capacity, or a capacity that has a *sphere* of possible exercises. The ‘generality’ of a concept is *indeterminate* as to whether the concept can or must be *used* in singular, particular, or *universal* judgments (see, for instance, VL 908-909). In this respect the ‘generality’ [*Gemeinsamkeit*] of a concept differs from the ‘universality’ [*Allgemeinheit*] of a judgment.²⁸ The *universal* use of the concept <man> in the judgment ‘all men are mortal’ *excludes* the possibility that the concept <mortal> applies only to *some* men or only *one* man. The universal judgment says of a certain kind of thing (<man>) that a predicate (<mortal>) applies to its *entire* sphere, whereas the mere concept, considered in abstraction from its use in a particular judgment, is *indeterminate* with respect to the spheres of other concepts it may relate to in judgment.

We are now better positioned to see how the above characterizations of concepts (as general, reflected, clear, partial, and mediate representations that are reflected rules and predicates of possible judgments) constitute a single theory of the logical form of a concept. Concepts are general because they reflect, or bring to consciousness, what is common to a manifold of representations. To do so, they must also be *clear* representations, since I must

²⁸ In the Vienna Logic Kant distinguishes between the “usus universalis” of a concept and the concept itself as a “repraesentatio communis” (VL 24:908). Properly speaking universality [*Allgemeinheit*] does not belong to concepts as such, but only to their use. Concepts are general or common [*gemeinsame*], not universal [*allgemeine*] representations.

reflect on their internal use in judgment to become conscious of them as marks that are contained in those manifold representations. They are partial representations because they are contained in the representations contained under them, rather than containing the latter within themselves. And they are “mediate”, because as general or partial representations, they cannot relate to particular objects except through the mediation of other representations in synthetic judgment.

Kant’s analysis of the logical nature of a concept can easily give the impression that a representation is general only if it constitutes *part* of the representations contained under it, i.e. only if it is a *partial* representation. But although this is true of the generality of *discursive concepts*, Kant does not seem to think that partiality is essential to the form of a concept or to generality *as such*. For instance, he says that an infinite intellect, which “is not discursive like ours but is intuitive, goes from the **synthetically universal** [*vom Synthetisch-Allgemeinen*] (of the intuition of a whole as such) to the particular, i.e. from the whole to the parts” (KU 5:407). The ‘universal’ here does not mean the representation of *an analytic unity*, or of a partial representation (*Teilvorstellung*) that is *contained in* a manifold of representations. (Kant contrasts it here with the “analytical universal”, *ibid.*) Rather, it has more affinities with the ancient notion of the universal as a *whole* (*katholou*), since a synthetic universal is not only contained in representations falling under it, but also contains these representations within itself.²⁹

If the synthetic universal is not a partial representation, it also cannot be mediate or discursive. An understanding that already contains the particular within the universal need not go *outside* of the universal to relate to objects through the mediation of another representation; it does not need to extend its knowledge through learning, because it contains all there is to know

²⁹ In Ancient Greek, *katholou* [universal] comes from *kata+holou*, from *holos*, meaning “whole”.

within its universal representation. But the synthetic universal does share in common with discursive concepts its character as a ‘ground of cognition’ (*Erkenntnisgrund*). For the infinite intellect has knowledge of all particulars *on the basis of* knowledge of itself as a synthetic universal; its knowledge is not constructed out of the parts, but proceeds from whole to parts. The synthetic universal also shares with discursive concepts *clarity* and *reflectedness*. For Kant does not deny that the infinite intellect is self-conscious:

That understanding through whose self-consciousness the manifold of intuition would at the same time be given, an understanding through whose representation the objects of this representation would at the same time exist, would not require a special act of the synthesis of the manifold for the unity of consciousness, which the human understanding, which merely thinks, but does not intuit, does require (KrV B139).

Through self-consciousness alone, the infinite intellect posits its own existence (i.e. its existence is first constituted by its consciousness of itself). But since the infinite intellect is a synthetic universal that contains all manifolds within itself, it thereby also posits the *existence* of all *objects*. Our intellect, by contrast, cannot (self-) posit the existence of that which it represents, not even in its representations of itself.³⁰ Its existence, and the existence of all objects of its representations, must be *given* to it (through sensation).³¹

This shows that the nature of self-consciousness, like that of generality and *Erkenntnisgrund*, is not *essentially* bound up with “partial representation” and “analytic unity”. We can conceive an intellect that is self-conscious in such a way that the ‘I think’ is not merely *contained in* all its representations (as a partial representation or *analytic* unity of apperception),

³⁰ There is an exception to this rule in practical cognition, since Kant does think that we posit our own existence (in a sense) through action. But I will leave aside these complications here.

³¹ Of course, its own existence cannot be given to it through *outer* sensation. But Kant nevertheless insists that sensation is involved in knowledge of our own existence: “the proposition ‘I exist’ [...] expresses an indeterminate empirical intuition, i.e., a perception (hence it proves that sensation, which consequently belongs to sensibility, grounds this existential proposition) ...” (KrV B422n.-423n.).

but already contains them all within itself (as a synthetic unity of apperception). The partiality and analytic unity of concepts express the limits of our understanding and are thus *negative* characteristics of our self-consciousness and general representations, rather than *positive* or essential determinations of self-consciousness and generality as such.

The *negative* account of the generality of discursive concepts is compatible with thinking that the *positive* sense of generality plays some role in discursive conceptual representation. As we have seen, Kant refers to the “unity of the concept” as a qualitative unity, which he later identifies with the synthetic unity of apperception (§15, B131). Qualitative unity is described as a unity that “comprehends” [*zusammenfaßt*] all possible cognitions into a whole (B114). This “qualitative unity” may be contrasted with the “quantitative” or *analytic* unity reflected by discursive concepts.³² The latter contains the restriction to partial representation, whereas the former notion of a ‘whole’ that precedes its parts does not *rule out* the possibility of synthetic universals. Our representation of the whole can only be represented as an analytic unity (i.e., is limited or restricted in this way) because, unlike the synthetic-universal, our representation of the whole does not already contain a manifold within itself. The manifold of representations must be given from elsewhere. The representation of qualitative unity *in us* therefore must be the representation of something simple, or of a unity that does not contain anything *within* it, but that is merely contained *within* a manifold as an analytic unity (B135).

The difference between an infinite intellect and a discursive intellect can thus be expressed by saying that a discursive intellect is only *formally* synthetic-universal. Since an infinite intellect already represents all objects through representing itself, its synthetic-universal is *material*. The difference between universal and singular, or concept and intuition, breaks down

³² By *quantitative* unity of apperception I mean “numerical unity”, which is a term Kant uses for transcendental apperception at A107.

for an infinite or original intellect: its representation is at once a “synthetic-universal” *and* an “intellectual intuition”, because it views all things at once, within its singular representation of itself (B72, B308, B335ff., et. al.). By contrast, *our formal* synthetic-universal is not a whole that contains all cognitions as parts within it, but rather is merely the “*form* of a whole” of cognitions that contains only the *possibility* of combinations of these parts (my emphasis A645/B673; see also KU 5:408). It must therefore be a *general* representation, rather than a singular one.

2.2 CONCEPTS AND APPERCEPTION: CONCEPT-FORMATION AND THE FORM OF A CONCEPT

2.2.1 Interpretive Difficulties Surrounding the Notion of Logical Reflection

Now that we have some grasp on the nature of concepts as general representations, we can turn to Kant’s account of concept-formation. This has been a source of vexation even for the most sympathetic of Kant’s readers. Part of the difficulty of the account is that it does not purport to tell us “how representations arise, but merely how they agree with logical form” (JL 9:33). That is, the account is not meant to be a *genetic* story of the coming-to-be of conceptual representations – but instead is meant to show how representations may “agree” with “logical form”, in this case with the logical form of concepts, which Kant identifies with their “generality” (JL §2). The genetic picture of concept-formation has been taken for granted in the literature, presumably because it is difficult to see how a non-conceptual representation may become a conceptual representation without a coming-to-be of the conceptual representation. Surely concept-formation consists in the coming-to-be of representations that were *not*

previously there. To say that concepts arise *from* pre-conceptual representations must, on this assumption, mean that the latter undergo an alteration or change, whereby they are replaced by (previously non-existing) conceptual representations. And since no state can undergo a change without the effect of some act external to the state, the “logical operations” of concept-formation must be those acts that effect the transition from non-conceptual to conceptual representation in a given subject.

However, Kant is quite explicit that concept-formation does not consist in the generation of a representation, but merely of the *form* of a representation. The genetic accounts assume that concept-formation should be understood as a process by means of which representations come to agree with something *opposed to* themselves (as singular representations), either with general features in the objects of representations (features that the objects have independently of our representations of them), or with innate features of the capacity to represent (features that the capacity has independently of its representations). Thus, they undergo an alteration, or become new representations, through an act that must have a source external to the representations themselves. The genetic picture is mistaken, I wish to argue, because concept-formation consists in operations through which representations come into agreement with *themselves* by becoming self-conscious. Generality is thus generated through acts that are internal to the representations; pre-conceptual representations are potentially general representations that bring *themselves* to actual generality, or to the form of a concept.

Let us begin with Kant’s explicit remarks about concept-formation. Discursive intellects do not possess general representations *innately*, but must *acquire* them through concept-formation (JL §6).³³ Kant intends his account of concept-formation to cover “the essential and

³³ In his response to Eberhard, Kant notes that “the Critique admits absolutely no endowed [*anerschaffene*] or innate

universal conditions for generation of every concept whatsoever” (JL §6n.1.), regardless of whether the concepts are “*empirical or arbitrary or intellectual*” (JL §5n.2.). For concept-formation only concerns “the origin of concepts as to *mere form*”, which is common to *all* concepts no matter what their origin is with respect to their matter or content (JL §5). Logic thus

[...] does not have to investigate the *source* of concepts, not how concepts *arise as representations*, but merely *how given representations become concepts in thought*; these concepts, moreover, may contain something that is derived from experience, or something invented, or borrowed from the nature of the understanding (JL §5n.2, 9: 94).

Regardless of how concepts arise with respect to their content, whether they are given or made, a priori or a posteriori, concepts are “always made” with respect to their “form”, or with respect to consciousness of *identity* of content in a manifold of *different* representations (JL §4n.).

As Kant exhibits by the following example of the concept <tree>, concepts are formed through the “logical *actus* of comparison, reflection, and abstraction”:

I see, e.g., a spruce, a willow, and a linden. By first comparing these objects with one another I note that they are different from one another in regard to the trunk, the branches, the leaves, etc.; but next I reflect on that which they have in common among themselves, trunk, branches, and leaves themselves, and I abstract from the quantity, the figure, etc., of these; thus I acquire a concept of a tree (JL §6n.1, 9:94).

In comparison I note the ways in which my representations *differ*. In reflection, I am aware of how they “can be conceived in one consciousness”, or of what they each have in *common*.³⁴ And finally, I abstract from every other way in which they differ. Since we have seen that discursive concepts bring to consciousness what is contained in and common to many, the most

representations; all without exception, whether they belong to intuition or to concepts of the understanding, it regards as acquired” (*On a Discovery*, 8:221f.).

³⁴ Reflection enables me to see “how diverse [representations] can be grasped [*begriffen*] in one consciousness” (R 2876, 16:555, after 1776).

fundamental of these logical acts must be “reflection”: that act through which I become conscious of *identity*. But a discursive intellect can only become aware of identity in an environment of multiplicity, i.e. only if it is also aware of difference. Comparison and reflection together produce consciousness of *identity in difference*, i.e. a concept. Why does Kant add an additional operation, that of “abstraction”? As the following passage suggests, abstraction does not belong at all to the constitutive or “positive” acts of concept-formation:

Abstraction is only the negative condition under which universal representations can be generated, the positive condition is comparison and reflection. For no concept comes to be through abstraction; abstraction only perfects it and encloses it in its determinate limits (JL 9:95).

By a “negative” condition of concept-formation, Kant cannot mean a *necessary* condition (*sine qua non*), since he says that concepts do not “come to be” through abstraction, but only come to be more “perfect”.³⁵ Instead Kant means that abstraction is a merely negative act of the understanding, an act of *not* attending to representations that do not belong to the concept. So comparison and reflection are the positive operations that generate concepts for use *in concreto* in judgments. But it is a separate act of the understanding, which goes beyond the mere possession of a concept, that enables us to perfect our concepts through their use *in abstracto*. My understanding of ‘the copula’, for instance, is more perfect if I am able to isolate what belongs to the copula *as such* as opposed to other functions of judging (this abstract use belongs to the study of logic).

The concepts of ‘identity’ [*Einerleiheit*] and ‘difference’ [*Verschiedenheit*] are said to be concepts of *reflection* or *comparison* in the Amphiboly chapter of the *Critique*, and it is crucial that we first understand what this means, and what the consciousness of identity through a

³⁵ It should thus be contrasted with the use of “negative” in relation to the principle of contradiction: the latter is a negative condition of thought in the sense that nothing would be a thought without satisfying the principle.

concept consists in, before turning to particular cases of concept-formation.³⁶ Against this approach one might object that the Amphiboly is concerned only with the comparison of *concepts* for the formation of *judgments*, and has nothing to do with the comparison of representations for the formation of *concepts* (see A262/ B318). Klaus Reich, for instance, seems to assume that the concept of identity presupposes that of the analytic unity of a concept, and hence cannot be employed in comparisons of representations that are not concepts (e.g. in the formation of empirical concepts).³⁷ This objection would not have much force against my reading, since as I argue later on, “analytic unity” belongs not only to concepts, but to *all* of my representations, including conscious intuitions. Moreover, Kant’s use of the terms ‘comparison’ and ‘reflection’ in relation to concept-formation is remarkably convergent with his use of those terms in the Amphiboly.³⁸ In the “comparison” of representations, I note the ways in which my representations are “different” [*verschieden*]. And in “reflection”, I am aware of how they “can be conceived in one consciousness”, or of how they are *identical* (JL §6 9:94).³⁹ This suggests

³⁶ On my reading, only the concepts of “identity” and “difference” play a role in the logical reflection leading to the formation of *concepts*; no other concepts of reflection are explicitly mentioned in Kant’s account of concept-formation. The other concepts of reflection only seem to be involved indirectly, since they play a role in the formation of *judgments* (for a contrasting view, see Longuenesse 1998, p. 162). It is noteworthy that in the *Dissertation*, where Kant characterizes the logical use of the understanding merely in terms of analysis or subsumption of concepts under one another, the only concepts of comparison that he mentions are identity [*Einerleiheit*] and difference [*Verschiedenheit*] (ID 2: 393).

³⁷ See Reich, p. 33; Reich does not distinguish between analytic unity and the form of a concept (generality).

³⁸ Kant’s gloss on *Einerleiheit* in the parenthesis already suggests this: “Einerleiheit (vieler Vorstellungen unter einem Begriff)” (A262/ B317). A manifold of representations *under* a concept are said here to be identical [*einerlei*]. So even when we compare concepts in judgment-formation, we are comparing the representations contained under them. Prior to concept-formation, we compare those same representations *with respect to identity*.

³⁹ Kant does not use the term “identity” [*Einerleiheit*] here. But in other passages it is used to characterize that which I am conscious of through a concept: “Der Begriff ist das Bewußtsein, daß in einer Vorstellung desselben dasselbe enthalten ist als in einer anderen, oder daß in mannigfaltigen Vorstellungen *einerlei* Merkmale enthalten sind” (my emphasis; MM 29: 888). It may seem that “identity” is not a proper translation for “*Einerleiheit*”, if one assumes that the term “identity” implies that a thing is only identical with itself (this sense of “identity” would not apply to features or properties, which presupposes a *multiplicity* of things, but to a thing, which requires only *one* thing). However, it is important to note that the philosophical tradition prior to Kant uses the term “identity” or its Latin cognate in the same way that Kant uses *einerlei*. Numerical identity is thought to be merely one species of the more general notion (Kant mentions the *principium identitatis indiscernibilium* in this context, in reference to Leibniz; A264/ B320). Hume, in the *Treatise*, suggests that the term “identity” only applies to a multiplicity of things; when

that identity and difference here, as in the *Amphiboly*, are employed as concepts of comparison or reflection.⁴⁰

A focus on Kant's empirical example of concept-formation (formation of the concept <tree>) has led interpreters to assimilate the purely *logical* act of reflection through the *understanding* [*Verstand*] to the act of reflection under sensible conditions through the *power of judgment* [*Urteilkraft*].⁴¹ The purely *formal* reflection at issue in the *Logic* is called a "logical actus", so it is likely that it is nothing other than the act of "logical reflection" that Kant mentions in the *Amphiboly*. Kant says that in "logical reflection", "there is complete abstraction from the cognitive power to which the given representations belong, and they are thus to be treated the same as far as their seat in the mind is concerned" (A262/ B318). This is contrasted with "transcendental reflection", through "which I make the comparison of representations in general with the cognitive power in which they are situated, and through which I distinguish whether they are to be compared to one another as belonging to the pure understanding or to pure intuition" (A261/ B317). Hence in logical reflection there is abstraction from the relation of

referring to only one thing, we may only speak of "unity": "the view of any one object is not sufficient to convey the idea of identity. For in that proposition, *an object is the same with itself*, if the idea express'd by the word, *object*, were no ways distinguish'd from that meant by *itself*; we really shou'd mean nothing, nor wou'd the proposition contain a predicate and a subject, which however are imply'd in this affirmation. One single object conveys the idea of unity, not that of identity" (Hume, T 1.4.2).

⁴⁰ There is a caveat here: in the *Amphiboly*, where Kant is concerned with *judgment*-formation, reflection is treated as identical with, or at least as a kind of, comparison (A262/ B318). But they are treated as distinct acts in *concept*-formation (JL, see above). I think this difference is significant. The capacity to judge is a discriminating capacity, but judgments involve more than mere discrimination (which animals are also capable of). They also involve "recogni[tion] [of] difference [*Verschiedenheit*]" (FS 2:59). Concepts, by way of contrast, enable me to become conscious of identity *in* difference. Through a concept I am not yet fully conscious of the differences among representations, i.e. I have not yet *reflected on* their differences (under a single unity of consciousness). In thinking through a mere concept of a tree, for instance, I do not form the negative judgment that spruces are not willows (this negative judgment would *determine* the concept of a tree, once it is formed). Comparison belongs to concept-formation only as an enabling condition of *reflection*. That is, through a concept I come to reflect on identity *in the hostile environment of difference*, whereas a judgment brings difference itself to consciousness through consciousness of identity (or analytic unity of consciousness).

⁴¹ See, for instance, Allison 2001, p. 21 and pp. 30ff., and Longuenesse 1998, pp. 163ff.

representations to sensibility in *contrast* with the understanding.⁴² Representations are treated as all having a common “seat in the mind”, or as products of the intellect (understanding), regardless of whether they are conscious intuitions or concepts.

It is true that Kant’s example of concept-formation begins with a subject that “sees” several trees. But this does not mean that we must interpret logical reflection as “logical reflection under sensible conditions” (Longuenesse 1998, p. 133). Reflection under *sensible conditions* belongs to the reflective use of the power of judgment that Kant discusses in the *Critique of Judgment* [*Kritik der Urteilskraft*].⁴³ This kind of reflection is closely related to logical reflection – as Kant himself indicates when he says that the reflecting power of judgment [*reflektierende Urteilskraft*] “proceeds with given *appearances*, in order to bring them under empirical concepts of determinate natural things” (KU 20:213; my emphasis). But there is a crucial difference. As we have seen, the understanding *alone*, through mere concepts, cannot relate to objects of cognition. The understanding is a *capacity* to judge [*Vermögen zu urteilen*], but it relies on sensible conditions to function as a *power* of judgment [*Urteilskraft*], i.e. as a power through which it is related to appearances given to us in sensibility. Now, the power of judgment [*Urteilskraft*] may relate understanding and sensibility in two different ways. The *determining* use of the power of judgment subsumes particular appearances under given (universal) concepts. But if a concept is not given, the power of judgment is used *reflectively* to

⁴² One might argue that logic *presupposes* something like “transcendental reflection”, since logic can only abstract from the materials of sensibility and take all representations as having a common “seat in the mind” (namely, the understanding in the broad sense of spontaneity) if sensibility has previously been distinguished from the understanding. Does general logic therefore presuppose transcendental logic? I do not want to draw this conclusion, because I disagree with its premise. I think that the general logician’s abstraction from sensibility is not the result of a botanization of the mind (which would commit Kant to all sorts of precarious presuppositions). General logic abstracts from sensibility because it starts with the presuppositionless principle of apperception, which is to say that it can only be concerned with understanding’s understanding of itself. Its “internal” perspective (self-consciousness) must be supplemented with an *external* one in order for sensibility to get into the picture.

⁴³ Longuenesse maintains that the kind of reflection that generates a concept is indistinguishable from reflection under sensible conditions (Longuenesse 1998, p. 163).

ascend from given appearances in search of a concept. This search for a concept is not mere logical reflection, which we have seen *abstracts* from the relation of representations to understanding and sensibility, because it is precisely concerned with the relation between *appearances*, given to us in sensibility, and the faculty of the *understanding*. It has as its principle the *contingent* agreement of appearances in nature with our power of cognition, or what Kant calls the “purposiveness of nature”, which enables us to “regard nature a priori as having in its diversity the quality of a logical system under empirical laws” (KU 20:214; see 20:216-17).⁴⁴ This principle is only relevant for the discovery of *empirical* concepts and their unification into a system, whereas we have seen that the principle governing logical concept-formation must be more general in order to make sense of the formation even of *a priori* concepts (see KU 20:211-12). Unlike the mere *understanding*, which relates only to *itself* through its logical acts (including “logical reflection”), and thus can only have *itself* (as an original synthetic unity of apperception) as its (logical) principle, the power of judgment relates the understanding *to sensibility*, and thus has the much richer *transcendental* (!) principle of *purposiveness* [*Zweckmäßigkeit*].⁴⁵ It is on account of the purposiveness of things in nature for our power of

⁴⁴ I think it can be argued that agreement between understanding and sensibility presupposes their original identity. That is, these faculties of representation can only agree or harmonize with one another if they are both *mine* (i.e. both contain a single analytic unity of consciousness). Since logical reflection merely brings the mineness of representations to consciousness, it is presupposed by the reflective use of the power of judgment. [Opposition also presupposes original identity. If it did not, it would be difficult to distinguish between opposition and bare difference. Consider certain views of *akrasia*, according to which a rational homunculus wills one thing, whereas a foreign irrational homunculus wills another thing. Such views have trouble explaining why this is a case of inner conflict, rather than simply a case of two homunculi, two I’s, willing different things. Similarly, genuine agreement or harmony would not be distinguishable from bare identity if I identified myself only with *one* of the homunculi and entirely ‘silenced’ the other.]

⁴⁵ Kant characterizes this purposiveness as “logical” (20: 216-17) and as the purposiveness of the “form” of an object (5:180-1), but it is not logical or formal in the sense that belongs to general logic. Kant explains that although “on first glance, this principle does not look at all like a synthetic and transcendental proposition” (20:211), it is in fact transcendental, for it concerns not logical relations alone, but the possibility of the *application of logic* to nature. In this respect reflection under sensible conditions through the power of judgment (*Urteilskraft*) may also be distinguished from transcendental reflection, which is geared not at the application of logic to nature, but merely at a “topic” or placement of representations in relation to their proper source or cognitive capacity.

judgment that they exist under empirical laws which can be ordered in a systematic whole (i.e. that what is given in sensibility *agrees* with the understanding). But it is on the strength of the understanding alone that such laws can be conceived (i.e., that we may be conscious of an *identity* in a variety of representations).

2.2.2 Logical Reflection and the Clarity of Concepts

If the logical act of reflection in concept-formation is thus to be distinguished from the reflection through which I determine whether given appearances conform to our power of judging them, how exactly should we think of logical reflection? As already noted, I reflect on representations with a view to that which they share *in common*, or by attending to the common marks contained in a manifold of representations. This suggests that reflection is a kind of *analysis*, by means of which I bring an already given analytic unity (that which is common in a manifold) to concepts (a *reflected* representation of what is common to many). Reflection may be operative prior to a concept, but it *terminates* in a concept (a reflected representation). In a footnote to the deduction in the first *Critique*, Kant suggests that reflection of what representations have in common is tantamount to reflection of analytic unity of consciousness:

The analytical unity of consciousness pertains to all common concepts as such, e.g., if I think of red in general, I thereby represent to myself a feature that (as a mark) can be encountered in anything, or that can be combined with other representations; therefore only by means of an antecedently conceived possible synthetic unity can I represent to myself the analytical unity (B133n.).

Kant's use of the term 'common concepts' here is pleonastic, since (as we've seen) all discursive concepts are as such reflections of what is common to a manifold. But Kant wishes to emphasize that concepts achieve their commonality by reflecting "analytic unity of consciousness", which he has just explained (in the main body of the text) to be the identity of

the “I think” in all my representations. This analytic unity of consciousness presupposes a synthetic one, since it is only in virtue of the possibility of combinations of representations that they are mine.

This means that concept-formation must consist in an act of self-consciousness. But if this is true, the representations that are reflected must already contain something in common with one another, i.e. must already contain analytic unity of consciousness. Let us take as an example the pre-conceptual representations of Kant’s infamous savage:

If a savage sees a house from a distance, for example, with whose use he is not acquainted, he admittedly has before him in his representation the very same object as someone else who is acquainted with it determinately as a dwelling established for men. But as to form, this cognition of one and the same object is different in the two. With the one it is mere intuition, with the other it is intuition and concept at the same time. (JL 9:33).

In this example the savage is said to have a “cognition” that is different merely in “form” from that of the civilized person who knows what a house is: the savage has an intuition, but the civilized person also has a concept. The following sentence elaborates on the difference in the form of the savage’s cognition:

The difference in the form of the cognition rests on a condition that accompanies all cognition, on consciousness. If I am conscious of the representation, it is clear; if I am not conscious of it, obscure (JL 9:33).

A concept is a clear representation; mere intuitions without a concept, by contrast, are obscure.

In other contexts Kant says that intuitions without concepts are “blind”, but the point is a similar one: there is lack of understanding or, as Kant says here, of “consciousness”.⁴⁶ But does the savage lack consciousness of his representation *altogether*? Suppose that the savage sees more than just one house, and that he begins to notice that they are all in certain respects the same. He

⁴⁶ “It is just as necessary to make the mind’s concepts sensible (i.e., to add an object to them in intuition) as it is to make its intuitions understandable (i.e., to bring them under concepts)” (A51/ B75).

could not do this if his various intuitions of these houses contain *no consciousness at all*, as this passage might suggest, because they then do not contain a *single consciousness* in common with one another in virtue of which he could reflect on what his representations share in common. The savage would have as “multicolored, diverse [*zerstreut*]” a self as he has representations (see KrV B134). There would be nothing holding his various representations of houses together, and so no possibility of concept formation.

In the first *Critique* Kant has a more nuanced account of obscure or blind representations, because he is concerned there to show that the understanding is not only a faculty of concepts, but a faculty of rules or functions that are *also* operative in syntheses of a sensible manifold at the level of intuitions. Kant is now careful to say that obscure representations contain some degree of consciousness, albeit not a consciousness that is explicitly aware of itself as identical in a manifold of representations:

Clarity is not, as the logicians say, the consciousness of a representation; for a certain degree of consciousness, which, however, is not sufficient for memory, must be met with even in some obscure representations, because without any consciousness we would make no distinction in the combination of obscure representations; yet we are capable of doing this with the marks of some concepts (such as those of right and equity, or those of a musician who, when improvising, hits many notes at the same time). Rather a representation is clear if the consciousness in it is sufficient for a consciousness of the difference between it and others. To be sure, if this consciousness suffices for a distinction [*Unterscheidung*], but not for **a consciousness of the difference** [*Bewußtsein des Unterschiedes*] then the representation must still be called obscure. So there are infinitely many degrees of consciousness down to its vanishing (B414-415n.).

We can see why Kant would not want the obscure representations that are reflected through concepts to lack consciousness altogether if we recall that the form of a concept expresses *self-consciousness*. For a consciousness to be *self-conscious*, it must be *identical* with that of which it is conscious. Otherwise it is consciousness of something other than *itself*, and so is not *self-consciousness*. If this is true, I cannot become self-conscious through the *addition* of a

consciousness to an original representation that lacked all consciousness of itself. To speak that way would be to change the subject, i.e. it would not be *self*-consciousness we are speaking of.⁴⁷ Instead, Kant suggests that self-consciousness may be either *obscure* or *clear*. It is only when it is “clear” that it constitutes a concept and is *fully* self-conscious, or accompanied by the “I think”.

If self-consciousness is a consciousness that is *identical* with that of which it is conscious, then it follows that all of *my* representations must belong to a single, unitary activity (or act of consciousness) in order to constitute a *single self*. This single activity or “action of the understanding” [*Verstandeshandlung*] presupposed by all representations that are mine, Kant tells us, consists in an original act of spontaneity or synthesis:

One can here easily see that this action must originally be unitary [*einig*] and equally valid for all combination, and that the dissolution (**analysis**) that seems to be its opposite, in fact always presupposes it; for where the understanding has not previously combined anything, neither can it dissolve anything, for only through it can something have been given to the power of representation as combined (B130).⁴⁸

The unity of the original activity of the understanding (synthetic unity of apperception) cannot be a unity that is composed out of prior representations, but must instead be a unity *presupposed* by each of my representations.⁴⁹ That is, *my* representations are *mine* in virtue of being marks that belong (as partial representations) to the unity of the original activity of the understanding (synthetic unity of apperception). All of my representations share in common their status as

⁴⁷ According to Robert Brandom, there are activities of the intellect that involve no self-consciousness at all, but which gain a kind of self-consciousness when they are brought to logical concepts (see for instance Brandom 1994, p. 559). However, this is not the kind of self-consciousness that is discussed in the German tradition, since Brandom’s subject-matter is a (meta-) consciousness that is distinct from that of which it is conscious.

⁴⁸ As Sebastian Rödl has pointed out, “einig” here means “einzig”. Grimm’s dictionary confirms this use of ‘einig’: “allmählich trat einzig an die stelle dieses einig, obwol es in der dichtersprache noch fort dauert”.

⁴⁹ This action, as we’ll see in the next chapter, can be understood as the self-sustaining activity of cognition or judgment. All judgments therefore belong to a *single* judgment or act of the understanding that constitutes the whole of cognitions.

marks of an original-synthetic unity of apperception, which is to say that they each contain *analytic* unity of apperception. So to become conscious of marks *as marks* of the original unity of the understanding is to bring them to the ‘I think’, or to become conscious of them *as mine*.

Logical reflection, in the formation of a concept, merely makes explicit what was implicit in my representations already, since it brings potentially reflected representations (representations containing analytic unity of apperception) to actual consciousness (the <I think>).⁵⁰ But this does not mean that Kant’s account of concept-formation is *viciously* circular, as many interpreters have argued, or that it excludes the possibility of pre-conceptual representation.⁵¹ As we have seen, it is not sufficient, for possession of a concept, to be able to pick out objects of a certain kind on the basis of criteria or marks. It is only when I am conscious of the mark *as a mark* (partial representation) of the representations contained under it, namely, through reflection of the *internal use* of the mark in judgment, that I possess a concept.⁵² I now not only *distinguish* trees from non-trees, but am conscious of their differences (see B414-415n.).

⁵⁰ We might say that representations that were general in themselves become general for me. As Longuenesse notes, there are several passages that suggest this *an sich – für sich* distinction. She cites a passage from the Reflections, in which Kant suggests that empirical apprehensions of objects already contain something universal “in itself”: “This community [*Gemeinschaft*] of representations under one mark presupposes a comparison, not of perceptions, but of our apprehension, insofar as it contains the presentation [*Darstellung*] of an as yet undetermined concept, and is universal in itself [*an sich allgemein ist*]” (R 2883 16:558, cited in Longuenesse 1998 p. 118).

⁵¹ Ginsborg, for instance, argues that “[w]e cannot regard appeal to comparison, reflection and abstraction as constituting Kant’s answer to the question of how empirical concepts are possible, but only as explaining how concepts we already possess can be clarified or made explicit” (Ginsborg 2006, p. 40). See also Ginsborg 1997, p. 53f. Pippin formulates a similar worry: “[...] a good deal of conceptual ‘work’ seems to have already gone on here. For one thing, the sensory manifold seems already to have been experienced in some determinate way prior to this analysis; I am able already to recognize three associable objects, and to have sufficient conceptual clarity to recognize branches, stems, and leaves as such. Indeed, the process described here seems more like our making much clearer to ourselves a concept we already have than to be a genuine derivation. As such, this reflective procedure would be helpful in ‘arriving at’ as general a concept of tree as we can isolate, but would not account for the origin of the concept itself” (Pippin 1982, p. 113).

⁵² In the formation of an empirical concept, these judgments may initially be “judgments of perception”, which involve logical functions but do not (yet) involve the determinate use of these logical functions. That is, they do not yet involve the categories (see P 4:300f.). Even in these cases, the generality of the concept rests on the possibility of the use of logical functions (the understanding) and not on the mere associations of the imagination. In this respect even Kant’s account of empirical concepts used in judgments of perception differs from the Humean account (see Appendix).

This consciousness of differences among marks presupposes consciousness of the synthetic unity of the whole of cognitions to which these marks belong, since they differ as *partial* representations belonging to a whole. Since the generality of concepts presupposes reflection in this sense, there is an important *logical* or formal difference between preconceptual and conceptual representation. The difference is not, as many fear, merely “psychological” (in an empirical sense).

We can now appreciate how this account of concept-formation brings representations into agreement with the ‘form’ of concepts or generality as such. The generality of concepts is not a product of putting individual representations together into a unity (or class), but instead consists in the reflection of the synthetic unity of apperception *presupposed* by all of my representations. The generality of the understanding must not be made to conform to my representations, rather my representations must be brought into agreement with generality. That is, they must be brought to the ‘I think’. The ‘I think’ is thus the “vehicle of all concepts whatever” (A341/B399).

We have seen that all of my representations may be viewed as *marks* of an original synthetic unity of apperception. Analysis or reflection in the formation of a concept does *not* consist in the *division* of this original unity, which is why a single, indivisible ‘I’ can be contained *in* all of my representations. However, we have also seen that self-consciousness is a consciousness that is identical with that of which it is conscious, which means that different representations (i.e., representations with different content) must (in a sense) constitute different ‘selves’. The possibility of a manifold of different representations is accounted for by the divisibility of the *sphere* of the <I think>. Viewed from this angle, all of my conceptual representations are *species* of the *genus* <I think>. Since all concepts share the <I think> or generality of the capacity to judge as their form, the individuation of concepts as *particular*

capacities to judge in various ways (e.g. the difference between the concepts <red> and <grey>) can only be due to the ways in which the sphere of the understanding is *determined* or “divided” into subspecies through *matter* or content. Concept-*formation* involves an *ascent* (through reflection or analysis) to the capacity to judge that is contained in *all* of my representations, but the determination of *content* involves a *descent* (through synthesis) from this general capacity to particular ones: “as regards content concepts arise synthetically” (cf. A77/B103). General logic abstracts from the ways in which the contents of concepts arise from synthesis; the acts of *determination* of the <I think> that bring about the contents of particular concepts belong to the subject-matter of *transcendental* logic.⁵³

2.2.3 Objection 1: Reflection in the Brutes

The above identification of reflection in concept-formation and self-consciousness might invite the rejoinder that Kant also ascribes reflection to non-rational animals, whose representations are only doubtfully self-conscious: “reflecting [...] goes on even in animals, although only instinctively, namely not in relation to a concept which is thereby to be attained but rather in relation to some inclination which is thereby to be determined” (KU 20:211). Although they do not form concepts (a kind of cognition or *Erkenntnis*), non-rational animals are said in a passage from the *Logic* to be capable of acquaintance (*Kenntnis*) with things (JL 9:65). Acquaintance implies the ability to “represent something in comparison with other things, both as to *sameness* [*Einerleiheit*] and as to *difference* [*Verschiedenheit*]” (ibid.). Thus, it would seem that the beasts

⁵³ It is important to stress that species always include more in themselves than the genus. The determination of any concept in logical division consists in its *enlargement* through synthesis: “determination is a predicate, which goes beyond the concept of the subject and enlarges it. Thus it must not be included in it already” (A598/B626).

can *reflect* on representations with respect to identity and compare them with respect to difference, even though they do so only for the determination of their inclinations. Does this imply that they are primitively self-conscious, but that they never develop their potential through the acquisition of concepts? Or does it mean that we were wrong to identify logical reflection with self-consciousness, since animals are not (in any way) self-conscious?

There are in fact two possible ways of dealing with Kant's comments on non-rational animals. One might think Kant applies concepts of reflection to animals merely *by courtesy* (*nur ehrenhalber*). Animals respond to that which *we* reflect on as identical or different, but in fact *their* responses are not acts of reflection or primitive self-consciousness, which presuppose *spontaneity*, but rather reactions to their environment that presuppose merely passive *receptivity*. The beasts are determined by the effects of objects on their senses to behave in discriminating ways, such that we might (by courtesy) say that they are "aware" of similarities and differences in the objects of their environment. But in fact their discriminating dispositions are no different from those of iron filings, which react to the presence of oxygen in their environment in ways that are different from their reaction to everything else. Like the iron filings, the brutes are externally *caused* to respond to their environment in the differentiating ways that they do.

Kant takes this possibility to be excluded by an argument from analogy. Non-rational animals are not complex machines that merely respond to identity and difference, but rather distinguish between different things on the basis of *representations* of them:

[...] from the fact that the human being uses **reason** in order to build, I cannot infer that the beaver must have the same sort of thing and call this an **inference** by means of the analogy. Yet from the comparison of the similar mode of operation in the animals (the ground for which we cannot immediately perceive) to that of humans (of which we are immediately aware) we can quite properly infer **in accordance with the analogy** that the animals also act in accordance with **representations** (and are not, as Descartes would have it, machines), and that in spite of their specific difference, they are still of the same genus as human beings

(as living beings). The principle that authorizes such an inference lies in the fact that we have the same ground for counting animals, with respect to the determination in question, as members of the same genus with human beings, as humans, insofar as we compare them with one another externally, on the basis of their actions (KU 5:464).

The analogy between animals and humans here is based on the *actions* of animals (building a house), rather than on their apparent ability to *perceive* their environment.⁵⁴ Kant would probably reject an analogy of the latter kind, since there is no basis for “external comparison”: we can externally compare the actions of beavers in building houses to our own actions, but we have no access to the inner workings of the power of representation in them that would allow us to compare their “seeing” a house to our seeing one. Thus, we have no basis for assuming that animals are aware of identity and difference among things in their environment through the *mere faculty of representation* [*Vorstellungsvermögen*] (understanding) that generates concepts.

However, comparisons of the *actions* of animals with our own, Kant thinks, provides a basis for assuming that they have *desire* [*Begehrungsvermögen*], and hence that they have *representations*; for to have desire is to be capable of bringing about action through representation (whether sensible or intellectual).⁵⁵ It is the connection with *desire* (not with perception) that allows us to say that the beasts, like us, are driven to different actions (e.g. refraining from eating bread, but eating a roast) by different (sensible) representations rather than by causes entirely external to the animal. So we may assume that animals are aware of identity

⁵⁴ Kant understands an inference from analogy to be an inference “from many determinations and properties, in which things of one kind agree, to the remaining ones, insofar as they belong to the same principle” (JL §84, 9:132). More specifically, in an inference from analogy I compare two relations: that of a to b (the beaver to building) and c to d (the human to building). An inference from analogy is impossible when a and c do not belong to the same *genus* or kind, or as Kant says here, when they do not share the “same principle”. An inference from analogy is possible for the brutes, since they belong to the same genus (living thing) as we do. But an inference is impossible in the case of God, whose intellect does not belong to the same genus as our own (Kant says that we may only have a *schematism* of analogy, but not an *inference* from analogy, with respect to divine attributes; see *Religion* 6:65n.).

⁵⁵ Kant seems to assume here that ‘action’ analytically implies ‘desire’. Kant defines desire as the capacity of an animal “to be through its representations the cause of the actuality of the objects of those representations” (KpV 9n.). See Engstrom 2009, p. 27f. for an elaboration of this point.

and difference among things in their environment through awareness of the way in which representations of these things affect their desires. For instance, the dog is aware that its representation of a roast affects its faculty of desire in a manner that is *identical* to or *different* from the way in which the representation of a loaf affects its desire. This is awareness not through spontaneity or concepts, but through the way in which the animal is affected, i.e. through *pleasure* and *displeasure* (it feels pleasure in seeing the roast, but displeasure in seeing the loaf).⁵⁶ If Kant's argument from analogy works, then we may appreciate that it is not *merely* "by courtesy" that he employs the concepts of 'reflection' in relation to non-rational animals: noticing what I feel (pleasure or displeasure) is a kind of *self-awareness*.⁵⁷ But it is not the kind that leads to concept-formation (i.e. it is not *logical*, but aesthetic reflection).

2.2.4 Objection 2: Reflection in Concept-Formation

A much more serious objection that might be raised against the identification of logical reflection with self-consciousness is that reflection in this sense seems to have nothing to do with concept-formation. In forming the concept <tree>, I do not form a concept of *myself*, or of the activity of a *consciousness in general*, but rather become conscious of what *trees* share in common. The

⁵⁶ Kant says that "*physically differentiating* means being driven to different actions by different representations. The dog differentiates the roast from the loaf, and it does so because the way in which it is affected by the roast is different from the way in which it is affected by the loaf (for different things cause different sensations); and the sensations caused by the roast are a ground of desire in the dog which differs from the desire caused by the loaf, according to the natural connection which exists between its drives and its representations" (FS 2:60). Notice that this account of animal differentiation is not entirely mechanistic. The sensations that cause different actions in the dog are feelings, not external occurrences. Thus, physical differentiation allows us to ascribe to animals not only tracking *behavior*, but also *consciousness* of themselves (in some sense).

⁵⁷ Because we do not communicate with the brutes through concepts, Kant denies that they have explicit self-consciousness and an ability to judge (*Anth.* 7:127; MH 28:74; MP L1 28:275-276; 29:44-45; 29:879). That is, they do not have self-consciousness in the sense of "accompaniment by the 'I think' through concepts". But I do not think that we should read these passages as denying that animals have self-awareness altogether. These passages only require that we qualify the sense in which animals "reflect": their reflections are not geared at concept-formation, but only at the determination of their inclinations.

identity reflected by a concept is an identity of *content*, i.e. an identity of what it is that my concept is a concept *of*, and only very few concepts are concepts *of myself*. It would seem that logical reflection or apperception is *too formal* to be enlisted in the formation of all concepts, since it can only account for the generation of *formal* concepts (the <I think> or functions of judging). In order to make sense of the formation of *non-formal* concepts, we need an account of the relation between sensibility and understanding.

We have seen that Kant intended his account of concept-formation to cover all kinds of concepts, *including* a priori concepts of an object in general and empirical concepts. The problem is that the generality of *these* concepts seems to reflect not only the generality of a single activity of the understanding in the manifold of its representations, but also what is common to the *contents* of various representations. How are these apparently distinct senses of generality related to one another? Answers to this question may be classified as follows:

(1) Consciousness of the identity of a capacity to judge and consciousness of the identity of content are distinct, but happen to coincide.

(2) My consciousness of the identity of content is distinct from, but precedes and determines consciousness of identity of capacity. Various representations could not belong to a single capacity to make judgments about red things if they do not each have the same content.

(3) My consciousness of the identity of capacity is distinct from, but precedes and *determines* consciousness of identity of contents. There would be nothing identical in the *contents* of my representations if I did not determine them to be identical through the understanding (through accompaniment by the 'I think').

(4) Consciousness of identity of content and consciousness of identity of the capacity to judge express a single act of reflection or self-consciousness, but the former is possible only through the latter.

The first two interpretations share a common assumption, namely that my consciousness of the identity of objects is not the same as consciousness of identity of the capacity of a subject to make judgments relating to those objects or contents. Thus, if Kant thinks that identity itself is a “concept of logical reflection” or of self-consciousness, his claim must be qualified: it is only the identity of a (subjectively shared) *capacity* that is a “concept of reflection”, since it is only through consciousness of *this* identity that I become *self*-conscious. My consciousness of what is identical to a manifold of objects or contents is a consciousness of something *other than myself*, and hence not itself an act of *reflection*.⁵⁸

I suggested earlier that we can throw light on Kant’s concept of a concept if we take seriously the idea that *identity* is a concept of logical *reflection*. But the above interpretations (1) – (2) do not take this idea seriously, and thus fail to see what is distinctive and new about a Kantian conception of concepts. Kant’s point is that commonality (or identity, *Einerleiheit*) among conceptual *contents* is not itself something that is receptively *given* by objects affecting us in sensibility (or, for that matter, by representations given innately). Hence, the identity of given contents cannot be *abstracted out of them*.⁵⁹ Instead, I am aware of representations as

⁵⁸ This view appears to be Longuenesse’s, since she distinguishes between two kinds of reflection: reflection of appearances (“logical comparison in the broad sense”) and reflection of concepts (“logical comparison in the narrow sense”). The former reflects on contents or objects and is distinguished from self-reflection, or reflection on concepts (Longuenesse 1998, p. 131).

⁵⁹ There are many passages where Kant emphasizes that this would be the wrong way to think of abstraction, e.g. “one does not abstract a concept as a common mark, rather one abstracts in the use of a concept from the diversity of that which is contained under it” (P 8: 200n.) In the *Vienna Logic*: “In logic it is a misuse for one to retain the expression to abstract so that one says *aliquid abstrahere*. E.g., as if, in order to have the concept of a tree, I took the concept of the leaves and of the trunk in particular, and abstracted from all differences among trees, and said that what has a trunk and leaves is a tree. No, I do not abstract the leaves and the trunk; rather, I retain them, and I

identical in content with one another (regardless of where that content comes from) in virtue of my consciousness of a common capacity to (spontaneously) *combine* them with various other representations. In comparing various red objects, for instance, I become conscious of “a feature [*Beschaffenheit*] that (as a mark) can be encountered in anything, or that can be combined with other representations” (B133). It is only “by means of an antecedently conceived *possible* synthetic unity”, or *capacity* to combine, which is shared in common by various different possible combinations, that my representations can become recognized as identical in content (my emphasis, *ibid.*). As we have seen, it is by becoming aware of the capacity to combine ‘red’ in various *judgments* about red things that I notice what red things have in common.

This interpretation of the way in which “analytic unity of consciousness” presupposes a “synthetic unity” is very different from standard interpretations. On the standard view, analytic unity presupposes a synthetic unity in the sense that it presupposes an already given combination that constitutes the *content* of the relevant representations. The content of concepts, Kant says, is brought about through combination or synthesis of a sensible manifold. So if analytic unity presupposes synthetic unity, it must presuppose manifolds given to us in sensibility. This would mean that general logic, in its treatment of concept-formation, presupposes transcendental logic, or an account of how content and relations to objects are made possible by the cooperation of the understanding and sensibility. On my interpretation, by way of contrast, the synthetic unity presupposed by concept-formation is the simple (indivisible) unity of the original activity of the understanding. That is, analytic unity presupposes a synthetic unity that contains *no* manifold

separate them from everything else. I have to pay heed to that which a cognition has that is common, and *abstract from that* which it has that is different[,] e.g., from the magnitude or smallness of the tree. Accordingly, the word must not be so used that we say *aliquid abstrahere*. I abstract from the remaining things. Abstraction does not add anything, then, but rather cuts off everything that does not belong to the concept, and notes merely what it has in common with other representations” (VL 907).

(the synthetic unity of apperception), rather than the complex unity of sensible manifolds in intuition. Understood in this way, general logic does not presuppose transcendental logic: logical reflection does not begin with consciousness of objects, but rather with *self*-consciousness, namely with consciousness of the activity of synthesis that rests on nothing other than the faculty of the understanding itself.⁶⁰

These remarks suggest that there is a certain priority of the identity of the capacity to judge (understanding) over the identity of particular contents. The latter is not outside of the context of the former. Rather than asking how our conceptual capacities (capacities to judge in various ways) conform to identities and differences in the objects, Kant's logic reverses the ordering by asking how contents or objects must be to conform to the conditions of their *conceivability*. The identity of various contents is not intelligible *in separation* from any relation to a discursive intellect through which they could be brought to the 'I think'. So it is not that a general (shareable) capacity to make judgments about red things accidentally *coincides* with the presence of a feature common to red things, but that primitive reflections of what objects have in common must already involve primitive consciousness of a common capacity to judge. These are not two separate acts of consciousness, but two aspects of a single consciousness of "identity", or a single act of primitive self-consciousness (interpretation 4).

⁶⁰ Although the logical account of concept-formation abstracts from the role of sensibility in forming a concept, we should not infer that sensibility plays no role at all in the formation of concrete concepts. The logical account shows how acts of the understanding may be brought into agreement with the understanding (generality as such), but not how *sensibility* may be brought into agreement with the understanding. The contingent agreement of understanding and sensibility, as we have seen, is the principle of "purposiveness" that governs the reflective use of the power of judgment. But my faculties of representation can only agree or harmonize with one another if they are both *mine* (i.e. both contain a single analytic unity of consciousness). Logical reflection is thus presupposed by and *informs* "reflection under sensible conditions" through the power of judgment. Of course, there is also a sense in which logical reflection would not be possible without the sensible conditions that enable the understanding to function as a power to judge. But this only means that those sensible conditions are necessary *enabling* conditions of logical reflection, not that they *determine* logical reflection. So it is perfectly intelligible, even in these cases, to take the activity of the understanding to be just that: an activity of the *understanding*.

On the reading I am developing, my consciousness of trees sharing something in common with one another already involves consciousness of the understanding, or synthetic unity of apperception, even *prior* to explicit self-consciousness through a concept. The commonality of representational contents is not first ‘*put*’ there through accompaniment by the ‘I think’, as on interpretation 3. But we may still say that it *is* there in virtue of the *possibility* of self-consciousness through the capacity to judge. This does not mean that the objects *would* not share anything in common with one another independently of the capacity to judge. Kant nowhere suggests that we could entirely “step outside” of the understanding and assess the lack of *identity* among objects that reigns in the dark absence of the understanding.⁶¹ In this respect, concepts of reflection (e.g. identity) are different from the categories (e.g. cause). For whereas the categories *determine* given appearances to be *as they would not be* without the categories, the concepts of reflection merely articulate primitive acts of reflection and comparison of appearances that are operative even prior to these concepts.⁶² The concepts of reflection:

are distinguished from the categories by the fact that what is exhibited through them is not the object in accordance with what constitutes its concept (magnitude, reality), but rather only the comparison of representations, in all their manifoldness, which precedes the concepts of things (A269/B325).

Identity and difference are not concepts that determine objects, but rather concepts that express the primitive self-consciousness involved even in (obscure) representations of objects.⁶³ For this

⁶¹ When Kant imagines that “among the appearances offering themselves to us there were such a great variety – I will not say of form (for they might be similar to one another in that) but of content, i.e., regarding the manifoldness of existing beings – that even the most human understanding, through comparison of one with another, could not detect the least similarity”, he means that it is possible that we could not bring identical appearances to the “I think” (i.e. that we could not *discern* identity) – not that it is possible that there is no identity among appearances at all (A653/B681).

⁶² In several passages Kant suggests that perceptions of objects are possible without the categories (e.g. P 4:298ff.). But to my knowledge he nowhere suggests that representations of objects are possible that entirely lack identity, or that are such that there is no *possibility* of reflection through concepts.

⁶³ It may nevertheless seem *tempting* to think of the concept of “identity” along the lines of the categories (which Kant sometimes suggests are *also* “concepts of reflection”: R 5051 (1771) and A310/B366-67). The categories

reason the concept of identity (which belongs to general logic) does not require a transcendental deduction: no question arises as to whether or not we are *justified* in saying that appearances share something in common or are identical in certain respects, because in saying this we are merely articulating what is *already* contained in consciousness of those appearances.⁶⁴

Since identity and difference are mere concepts of reflection, it is not surprising that Kant's general logic, which abstracts from objects or contents of cognitions, nevertheless concerns itself with *identity* and *difference* among *contents* of representations. "Logical reflection" in the formation of a concept could not belong to general logic if the logician were barred from reflecting on what representations share in common and from comparing their differences. Moreover, it would be odd to find the distinction between analytic and synthetic judgments, which rests on that between identity and difference of conceptual contents, in the *Jäsche Logic* if the employment of the concepts of reflection in logic were illegitimate (JL §36; 9:111). As I have argued here, consciousness of what *contents* share in common is a kind of *self-consciousness*. And since general logic itself is an exercise of self-consciousness, we should expect to discover that concepts of reflection belong to it.

determine appearances, but are not to be found in the appearances (the concept 'cause', for instance, cannot be taken from appearances). Perhaps, similarly, appearances are not themselves identical, but *determined* to be so through a concept. I think this view is false, because it does not acknowledge the possibility of reflection prior to the acquisition of concepts. Prior to the formation of concepts, we can become conscious of identity because this consciousness is constitutive of the very *form* of appearances, even though our consciousness of it is not yet conceptual.

⁶⁴ In the same way, Kant did not require a *deduction* of the logical forms of judging. For they, too, are already implicitly involved in any act of consciousness, including perceptions. But whereas concepts of reflection are concepts of *analysis*, the logical forms of judging articulate acts of synthesis or *combination*.

2.2.5 Generality of the ‘I think’ and the Extension of a Concept

According to the above account of concept-formation, all concepts have their logical origin in the concept <I think>. The latter is not merely a formal concept; it is also the form of all concepts, or *generality as such*. This may seem like a strange claim to make about a concept that contains the first-personal pronoun. But we should not be too quick to assume, with the Cartesians, that self-consciousness is consciousness of myself as an individual or singular ‘I’, rather than a “consciousness in general” [*Bewußtsein überhaupt*] that can be shared by any thinker (B143). If my representation of my capacity to judge (or original synthetic unity of apperception) were originally a *singular representation* of myself, rather than the representation of a general consciousness, it would have to be an *intuition*. If it is an empirical intuition, then we must ask: on what grounds can we infer from the empirical intuition of myself thinking x and an empirical intuition of myself thinking y that it is one and the same “I” that thinks x and that thinks y? Regardless of the number of empirical intuitions I may have of myself, no accumulation of them can secure consciousness of the *same* “I” in the manifold of my representations. No inference from empirical intuitions to something which endures through time and is the subject of a manifold of thoughts is possible. And if my intuition of myself is an *intellectual* intuition, my consciousness of myself would not presuppose my existence (as something given), but would itself posit my existence, a possibility that Kant forcefully argues against in the Paralogisms (B418ff.). The ‘I think’ thus cannot be a (first-personal) *singular* representation, but must be a *general* representation, or must reflect an *analytic* unity of consciousness. This is why Kant suggests that the “I think” –or transcendental apperception – is the form of thinking in general, common to all thinking, rather than a thought that only a single subject can enjoy (cf. A348/ B406).

Concepts, we have seen, reflect an identity of various contents only by means of reflecting the identity of the understanding throughout its various acts. At this level of reflection, I do not distinguish between *my* and *your* thoughts, just as I am not conscious of the differences between this tree and that tree in the formation of the concept <tree>. Consciousness *of* the latter distinction presupposes the concept <tree>, just as consciousness of the difference between you and me *presupposes* consciousness of what we share in common, namely, the <I think>. ⁶⁵ In forming any concept, I become conscious through reflection (i.e., *a priori*) of the possibility that other subjects may share my thoughts, and thus understand what I think, under conditions in which more than one subject exists. The nature of our intellect, for Kant, is just as wedded to the nature of concepts (general representations) as the concept is wedded to the intellect. Or we might wax Hegelian and say that the Intellect (the ‘I think’) *just is* the Concept.

This aspect of Kant’s logic of concepts may not seem palatable to post-Fregean contemporary logicians who emphasize the purity of logic from all psychologism. I have argued that the generality of our capacity to judge is not a psychological *appendage* to the *logical* characterization of concepts in terms of their generality, but rather an elaboration on the logical notion of generality itself. ⁶⁶ That is, the “generality” or “extension” of concepts is inseparable from their character as “capacities” that can be exercised in various ways in judgments.

Contemporary logics, by contrast, represent the extension of a concept *independently* of any representation of the capacity of a thinking subject. The generality of the concept <dog>, for

⁶⁵ As noted above, we may be able to *distinguish* different trees before forming the concept <tree>, but we cannot become *conscious of the differences* without the concept.

⁶⁶ According to Wayne Waxman, Kant’s exclusion of psychology from general logic implies that self-consciousness itself is not part of general logic, even though it is presupposed by it. It would be a mistake, he thinks, to suggest that “logicians ought to modify their textbooks to incorporate such principles as transcendental apperception into their science, so as to repair some hitherto unremarked defect in their definitions or demonstrations” (Waxman 2005, p. 41). I agree with Waxman that the introduction of apperception does not change much of traditional logic, but I disagree that it is not a topic of general logic, properly understood. Its centrality does not, however, relegate logic to the domain of empirical psychology.

instance, is represented by the *set* of indefinitely many things that serve as ‘inputs’ into a logical function (<dog>) that produces truth as its ‘output’. But it is a wholly different matter, according to this view, whether anyone possesses the concept or has the general capacity to *use* the concept <dog> in judgments.⁶⁷ Now, a proponent of the modern conception of “extension” may think that capacities of thinking subjects play a role in *determining* the extension of a concept. One need not commit him to a *realist* view of concepts, according to which there is a determinate, objective ‘fact of the matter’ as to whether a given object falls within the extension of a concept or does not. *Anti-realist* views are also compatible with the extensional notion of a concept: it may be thought to be a subjective matter of convention as to whether a given object belongs in the set. Philosophers of a Fregean bent might argue that this is a false dichotomy: the extension of a concept is determined by the thoughts of subjects, but not in any way that rules out realism. But what all of these views share in common is the idea that the *extension* of the concept consists in its set-theoretical properties, which can be represented in logic independently of the way in which the extension is *determined*. It would introduce an objectionable element of *psychology* into logic, one assumes, if logic could not detach the concept from the thinking subject.

Kant’s logic of concepts does not require a complete dismantling of the idea of extensions of concepts as sets of objects, but it does demand that we view it as derivative of a more fundamental *logical* notion.⁶⁸ If the logician *starts* with the idea that the extension of a concept is a set or collection of things, then it will not matter to the logic of concepts whether the objects in the set contain anything in common with one another. For the idea of a set does not in

⁶⁷ Strawson, for instance, carefully distinguishes between what a concept is and what the possession of a concept consists in (Strawson 1966, p. 20). See Bennett 1966, p. 54, for a view closer to my own.

⁶⁸ Kant sometimes speaks of sets [*Mengen*] of objects as falling under concepts (e.g. KrV B39f.). This is noted by proponents of the “aggregative” or extensionalist understanding of Kantian concepts, but if I am right, it presupposes the non-aggregative conception of extension as a continuous sphere of what is identical *in* a manifold (see Schulthess, pp. 112-117).

principle rule out the possibility of a concept that contains a donkey, the moon, and my left ear in its extension.⁶⁹ That is, it leaves open the possibility that its members are only *externally* related, but share no *internal* features. Kant's view is that it is an *essential*, logical feature of concepts that they pick out features that things share in *common* with one another. These are features that belong to the *internal use* of the concept in judgment (an activity of the understanding). As we have seen, the "unity" of the concept itself is the unity of a single (*einzig*) action of the understanding (*Verstandeshandlung*), a unity that is not *divided*, but *shared in common* by the manifold of representations contained under the concept. It follows from this that the extension of a concept cannot be thought of as a set or aggregate of *discrete* points, for no set of discrete representations *can* constitute the unity of a single activity of understanding.⁷⁰ Kant instead thinks of the extension of a concept as a "sphere", which suggests a *continuous* magnitude of what is *identical in a manifold*, rather than a set (or unity containing a manifold).⁷¹

This conception of the sphere of concepts entails that intuitions and singular employments of concepts in judgment *have no sphere*. For they do not reflect a continuous activity of the understanding shared in common by a manifold. They are more like extensionless points *on* a continuum. Rather than thinking of intuitions or objects as constituting the extensions of concepts (from below, as it were), Kant instead thinks of the extensions of concepts as determined by their *intensions* (from above). Intuitions thus play a disappearing role in the logic of concepts.

⁶⁹ I am thankful to Stephen Engstrom and Ian Blecher for this example (their original example was slightly different).

⁷⁰ This is sometimes overlooked by interpreters of Kant. See, for instance, David Bell, "Some Kantian Thoughts on Propositional Unity", p. 3ff., who argues that the unity of a manifold under a concept is akin to an aggregate.

⁷¹ One advantage of this reading of extension [*Umfang*] is that, like a spatial continuum, the extension of a concept is infinitely divisible. This explains why Kant claims that there is "no lowest concept (*conceptus infimus*) or lowest species" (JL 9:97). "Every concept", as Kant says, "stands under the principle of determinability: that of every two contradictorily opposed predicates only one can apply to it" (A571/ B599). This is because any discursive concept can be "determined" by another concept in synthetic judgment.

It is often assumed, in studies of Kant's logic, that this intensional conception of concepts stands in tension with his post-critical-turn assumption that the contents of concepts rest on sensibility. Shouldn't the latter claim mean that *intuitions* now determine the extensions of concepts? But this objection rests on a misunderstanding. Rather than arguing that generality of concepts rests on intuitions, Kant instead shows in his transcendental logic how *intuitions* (and the object of cognition in general) rest on the generality of concepts (the understanding). A further assumption commonly made is that the intensional conception of a concept is incompatible with the formality of Kant's general logic. Shouldn't the formality of logic *require* that it understand extensions in terms of the set-theoretic properties of concepts? For only if the logician can express the extension of the concept as containing objects *x*, *y*, and *z*, does he abstract entirely from the content that these objects share in common. This objection overlooks a core result of our discussion, namely, that *identity* of content is a formal concept of reflection. As we have seen, Kant's logic is not 'formal' in the (syntactical) sense that would require it to abstract from identity of content.

3.0 JUDGMENT

The core chapter of Kant's general logic is the chapter on judgment, because judgment is the core exercise of the understanding. All acts of the understanding can be traced back to judgments, so that "the understanding in general can be represented as a faculty for judging" (A69/B94). Since general logic abstracts entirely from the content of thought or from relation of thought to objects (A54, 55/ B78, 79), its treatment of judgment should concern the 'act' or 'function' of thinking or judging, regardless of *what it is* that is thought or judged. How, then, must we understand this act of judging? In the *Jäsche Logic*, Kant gives the following "explanation" [*Erklärung*] of "judgment as such" [*Urteil überhaupt*]:

a judgment is the representation of the unity of the consciousness of various representations, or the representation of their relation [*Verhältnis*] insofar as they constitute a concept (JL §17 9:101).

Several different interpretations of this passage are possible, each of which corresponds to a different overall understanding of Kant's general logic. Since the "table of logical functions of judging" is a collection of "moments" of the function of judgment as such (A70/B95), our interpretation of this passage will also determine our understanding of the functions in Kant's table. In the following, I will consider four possible interpretations. The "representation of the unity of the consciousness of various representations" in the above passage may be taken to be either:

(1) the representation of what is *identical* in or *common* to my representations (“analytic unity of consciousness”) in analytic judgments only (Marburg Neo-Kantians),

(2) the representation of what is identical in or common to my representations (“analytic unity of consciousness”) in both analytic and synthetic judgments – i.e. no matter whence the representations are given⁷² (Longuenesse, Allison, MacFarlane, et al.),

(3) the representation of the unity of an act of *combining* representations through which judgment *relates to an object* (“objective synthetic” – but not analytic – “unity of consciousness”) in both analytic and synthetic judgments – i.e. no matter whence the representations are given (Klaus Reich),

or (4) the representation of the unity of an act of combining representations that is common to each of ‘my’ representations (“analytic” *and* “synthetic unity of consciousness”) in synthetic judging only.⁷³

I will call the first (1) of these interpretations the ***narrow analytic approach***, since it restricts the concern of general logic to analytic judgments, and the second (2) the ***broad analytic approach***, since it allows general logic to also be concerned with synthetic judgments. Both share in common a conception of logical form in terms of “analytic unity of apperception”. The

⁷² Kant says that general logic abstracts from the *material source* of representations and considers only the source of their form (L §5n.1). According to most interpreters (including Reich and all those listed here as belonging to the ‘broad analytic approach’), this means that general logic abstracts from the difference between analytic and synthetic judgments, which would seem to be a difference that relates to the *contents* of concepts (‘whence they are given’), not to their form. However, textual evidence mitigates against this view. There is a discussion of the difference between analytic and synthetic judgment in the *Jäsche Logic* (§36), and Kant suggests that the difference belongs to general logic at KrV A151/B190. Moreover, Kant’s use of symbols in the *Logic* indicates that they do not stand for any arbitrary content, irrespective of whether or not the contents are identical or not. For instance, “A is B” (or “a+b is c”) symbolizes a synthetic judgment, whereas the judgment “A is A” (or “a+b is a”) is the formula of an analytic judgment (cf. JL §36n.1).

⁷³ Kant suggests that “the analytical unity of apperception” is the “identity of the consciousness in representations” and that the “synthetic unity of apperception” is the possibility of “combin[ing] a manifold of given representations in one consciousness” (B133). Each of the various interpretations that I will discuss have different readings of “analytic” and “synthetic” unity. So these should only be understood as ‘labels’ here - I beg the reader for patience before I develop my own reading of what they mean!

(3) *objective synthetic approach* takes general logic instead to be concerned with forms of judging that derive from the ways in which judgments relate to objects through *synthesis*. I will argue here for the (4) *mere synthetic approach*, which takes general logic to be concerned with synthetic acts of the understanding independently of the ways in which they relate to objects (i.e. independently of the ways in which the understanding is ‘first applied to’, or determines, sensibility through the imagination).

3.1 THE ANALYTIC APPROACH

The narrow analytic approach (1) has already received immense criticism from Kant interpreters and can be dealt with briefly here.⁷⁴ According to this view, general logic, because it abstracts from the relation of thoughts to objects, is concerned with *analytic* judgments only. For these judgments relate concepts in mere “thought”, in accordance with the logical principle of contradiction, rather than relating thought to the object. This interpretation confuses two different claims. Kant’s claim that general logic contains only analytic cognitions about the forms of thinking and is thus sterile (i.e., cannot lead to the expansion of cognition) is being confused with the view that general logic is concerned only with analytic cognitions. General logic has an analytic method, since it does no more than analyze or reflect on acts of the understanding, in abstraction from its cooperation with sensibility. But these acts certainly include (or perhaps even are restricted to) the core acts of the understanding in *synthetic* judging. To think otherwise would be to violate Kant’s claim that general logic formulates rules for the use of the

⁷⁴ Cf. Longuenesse 1998 pp.91-92, Reich, p.10ff.

understanding *in general*. Moreover, this view of general logic would make it very hard to see how pure concepts of objects (categories), which rest on syntheses of the understanding, could derive from logical functions that rest on analysis alone.⁷⁵

According to the broad analytic approach (2), the “unity of consciousness of various representations” is taken to be the analytic unity of consciousness that is contained in *both* analytic *and* synthetic judgments. This interpretation is by far the most widespread in the secondary literature and will require more extensive discussion.

On this view, Kant’s theory of judgment aims to combine two distinct aspects of the activity of thinking or judging. In Allison’s words, “to judge is *both* to unify representations by combining them in a concept (producing an analytic unity) *and* to relate these same representations to an object in a manner that purports to be valid with respect to the object” (Allison 2004, p. 84). These are not two distinct conceptions of judgment, Allison argues, but rather two ways of looking at a single conception of judgment: either judgment is looked at from the perspective of *general logic*, in which case it is considered as a combination of concepts that produces analytic unity, or it is looked at as a combination that relates to objects (i.e. as a synthetic unity), as it is considered in *transcendental logic* (ibid.). The broad analytic approach thus assumes that the “analytic unity” of a judgment may be considered in abstraction from its “synthetic unity”, even though it acknowledges that the two unities are interrelated in important ways.

⁷⁵ Hermann Cohen, a proponent of this interpretation, is aware of the problems facing his view with regard to the transition to the categories: “The forms of thought cannot just be taken from the kinds of judgments that formal or general logic distinguishes because all that figures in these kinds of judgments are mere products of thought; the judgments are analytic. What we are looking for, however, are the forms of thought as forms of the synthetic judgment. The unity of consciousness, which has to have thought as its means, is a ‘synthetic unity of consciousness’. Therefore, the forms of this synthetic thought cannot be derived from the species of analytic thought” (Cohen, 1871, p. 242; cited in Reich, p. 10).

What does it mean for judgments to be considered as combinations that produce an analytic unity? Analytic unity, according to the analytic approach, is the unity that “*results from the analysis of given representations*” (Longuenesse 1998, p. 86). The *analysis* of representations consists in the logical operations of comparison, reflection, and abstraction, which Kant says generate the “form” of concepts or their *generality* (JL §6). In comparing representations of firs, elms, and birches, I reflect on that which is *identical* or *common* in all of them and abstract from ways in which they differ to form the general concept <tree>. The discursive representations that emerge from these logical operations are, unlike intuitions, general or reflected representations that have logical *quantity* or a “sphere” [*Umfang*, extension]. This enables them to function as representations *under* which more particular concepts can be *subsumed* in judgment. Because the *form* of a concept is its *generality* or sphere (JL § 2), and because concepts stand in relations of inclusion and exclusion to one another with respect to their spheres, concepts are the potential predicates of judgments (as concept-subordinations) in virtue of their form.

Now, the broad analytic approach takes the logical operations that generate the form of concepts (or their “analytic unity”) to be the *same* operations that are involved in the logical use of the understanding in judgment. Just as that which is common or homogeneous in representations is reflected, and brought to concepts, in concept-formation, judgment also is a kind of comparison or reflection of the homogeneous in representations, and involves bringing representations under concepts, thus producing an ‘analytic unity’. That is, *all judging is concept-subordination*: “several concepts, and with them the representations contained ‘under’ them, are thought under one and the same concept of greater universality” (Longuenesse 1998, p. 85; see also MacFarlane 2000, p. 122).⁷⁶ According to Kant, subordinations of representations

⁷⁶ As we shall see, there is certainly something correct about Longuenesse’s characterization of judgment as

under concepts requires that the “former must be **homogeneous** with the latter, i.e. the concept must contain that which is represented in the object that is to be subsumed under it” (KrV A137/B176). So if discursive thinking as such is concept-subordination, then it must be understood as a kind of *analysis* or reflection. That is, it is a way of bringing to consciousness that which a given concept shares in common with other concepts is common or identical in concepts (cf. Longuenesse, op. cit., p. 111).

At this point one might object that this interpretation of the general explanation of judgment accounts only for analytic judgments, but excludes synthetic ones. For in a synthetic judgment, the predicate-concept does not reflect what is already contained in the subject-content; it *goes beyond* what is contained in the latter. So a synthetic judgment, it seems, cannot consist in an act of analysis or logical subordination. However, the analytic approach can emphasize that in these judgments, there is an act of comparison or subsumption of an *object* – or rather, the singular representation (intuition) of an object - under both subject-concept and predicate-concept. Although the concepts are not homogeneous, the representation of the object already contains implicitly what is reflected explicitly (and discursively) by both the subject and predicate concepts. Thus, we can say more generally that all judgment involves the subordination of *representations* under concepts, whether those representations are intuitions or concepts.

What distinguishes the ‘broad analytic approach’ from the first analytic interpretation is thus that it acknowledges that judgments are not *only* comparisons of concepts, but that they *also* relate to objects. Since Kant argues (against the Wolff-Leibnizian school) that relations to objects

reflection and thus of judging as a kind of *conceptualizing*. I take this insight to be the major achievement of Longuenesse’s work. She argues, against Reich, that the conception of judgment as “comparison” or reflection should not be restricted to the functions of quantity and quality, but extends also to the relational and modal functions. As Kant says in the Amphiboly chapter, “all judgments, indeed all comparisons, require a reflection” (A261, B317). As Longuenesse points out, this means that *all* judging involves reflection, and not only the kind of judging that belongs in the purview of the third *Critique*. Aesthetic and teleological judgments are *merely* reflecting, whereas “determining judgments” involve both reflection *and* determination (Longuenesse, p. 164).

cannot be recovered through analysis alone, he must think that judgments essentially rely on *synthesis*.⁷⁷ In his *transcendental* logic Kant shows that analysis presupposes syntheses of *sensible* manifolds, and in this way proves that the extensions of concepts are ultimately intuitions or objects (the result of sensible syntheses), and not concepts (the result of analysis). To accommodate the fact that judgment must relate to an object in a way that cannot be brought about through analysis, the logical account of judgment must mention an object= x over and above the analytic unity of judgment (which is brought about through analysis).⁷⁸ In Longuenesse's formulation of the view, "[...] every judgment of the form 'A is B' can be developed into the following form: 'To everything x , to which the concept A belongs, belongs also the concept B'" (Longuenesse, pp. 86-7).⁷⁹

The general logical explanation of judgment from the above passage obviously does not mention the object= x to which judgments refer. The analytic approach must nevertheless take this reference to be implicit in Kant's analysis of logical form, on the ground that the logical form of judgment otherwise would not apply to synthetic judgments. Moreover, concepts would not have meaning, and so could not be analyzed, without relations to objects (cf. Longuenesse, p.

⁷⁷ Or, in Kant's own words, the "**analytical** unity of apperception is only possible under the presupposition of some **synthetic** one" (B133). According to Longuenesse, this means that the analytic unity of apperception presupposes pre-discursive syntheses of a sensible manifold.

⁷⁸ Wayne Waxman, like Longuenesse, assumes that the syntheses presupposed by the analysis in a judgment must consist of syntheses of *sensible* manifolds in intuition. This leads him to the radical claim that the "original synthetic unity of apperception", which he identifies with the "*prediscursive* understanding", is to be distinguished from the "faculty of thought, or representation by means of concepts (discursive understanding)" (Waxman, 1991, p. 34).

⁷⁹ According to Longuenesse, this is something Kant "says" (p. 86). However, she provides no citation of where Kant *says* that the logical form of judgment can be developed in this manner, and I have been unable to find any passage that she might be referring to. Kant does use the term " x " to articulate the distinction between analytic and synthetic judgments in the *Jäsche Logic*: "An example of an analytic proposition is, To everything x , to which the concept of body ($a + b$) belongs, belongs also extension (b). An example of a synthetic proposition is, To everything x , to which the concept of body ($a + b$) belongs, belongs also attraction (c)" (§36, p. 117,118). However, the term ' x ' seems to only serve the purpose of indicating that which is contained 'under' a concept. Kant does not suggest here that ' x ' is an object, or set of objects. Allison adheres to the same general view of judgment: "[a judgment] asserts that the same (or some, or every) x that is thought through the predicate 'body' is also thought through the predicate 'divisibility'. This is the basic Kantian schema for judgements of the categorical form, whether analytic or synthetic" (Allison 1992, p. 332).

86f., p. 106). So even analytic judgments *presuppose* an ultimate domain of objects that can be brought under their concepts.⁸⁰ The distinction between concept and object, or between analytic unity and the object=x, is thus interpreted as a distinction on which general logic *rests*, even though general logic abstracts from the *ways* in which judgments relate to objects (cf. Longuenesse, p. 86n.).⁸¹

The picture of judging that emerges from the analytic approach is that of an act of classification. Judgments are understood as acts of analysis, by means of which concepts, and ultimately, objects (intuitions), are classified.⁸² For instance, in the judgment “this rose is red”, a particular rose is *classified* as a red thing. General concepts have lower concepts, and ultimately, classes of objects, as their extensions. Given this conception of generality, the analytic approach assumes that the laws of general logic are general in that they apply to *all* objects=x, irrespective

⁸⁰ According to Longuenesse, the extension of a concept may be either thought of as consisting in lower (species) *concepts*, or in a set of *objects* (*Menge von Gegenständen*) contained under that concept. Following Schulthess, we might call the former the “intensional extension” and the latter the “extensional extension” of concepts. Concepts are considered as grounds of cognition [*Erkenntnisgründe*] only in so far as they have “extensional extension” or a set of *objects* thought under them (cf. Longuenesse, p. 87 and p. 77n.). Longuenesse does not go so far as Schulthess in bringing Kant’s logic closer to predicate logic by giving the idea of extensions as “sets of objects” a logical status (Longuenesse, p. 383n.). General logic abstracts from this distinction in its treatment of syllogisms, which rely only on the general idea of extension as consisting in representations contained *under* a given representation. But Longuenesse does agree with Schulthess that throughout his development Kant was working towards a conception of logic that no longer “privileged relations of concepts considered in their intension or content” but instead “privileges the extension of concepts, regardless of whether this extension is made up of concepts or of intuitions” (ibid. p. 77n.). This emphasis on extensions translates into the privileged status of the category of quantity, as well as a conception of judgment as concept-subordination.

⁸¹ Strawson does something similar in his derivation of the logical functions from the idea of “a formally atomic proposition in which a one-or-more-place predicate is applied to one or more specified objects of reference” (Strawson 1966, p. 81). Understood in this way, Strawson realizes that “the excursion through the forms of logic has not advanced us a single step. We are left merely with the notion of unschematized categories, if any, corresponding to the logical distinction of individual ‘name’ (definite referring expression) and predicate-expression. Referring this logical distinction to the conditions of making objective judgments of experience seems to give us at most the notions of particular object and universal kind or character as ‘categories’ which must have application in a world in which such judgments can be made. But this meager result we might have attained directly from the original distinction between intuitions and concepts, sensibility and understanding” (ibid. p. 82). Like Longuenesse and many others, Strawson is here working with a post-Fregean distinction between ‘object’ and ‘predicate-expression’ (concept) as logically basic notions. But Strawson attempts to reconstruct this argument “without dependence on the model associated with transcendental subjectivity” (p. 74), which makes his interpretation far more remote from Kant’s text than Longuenesse’s.

⁸² As explained above, this is Longuenesse’s view. But it is also found in Paton Vol. I, e.g. at p. 255, and in Tiles (2004), among others.

of which kind of objects turn out (in transcendental logic) to be values of x . If general logic is formal, it is only because it abstracts from the particular values of x , not because it abstracts from the object= x (or whole domain of possible objects of thought) altogether.⁸³ Its formality thus rests on its generality (applicability to all objects= x).⁸⁴

I wish to raise two main objections against the broad analytic approach. First, as I will argue in the sections to come, there is no reason to deny that general logic is concerned with judgment as an act of *synthesis*. There is, however, a reason to question whether it can be concerned with the subordination of *objects* under concepts, even if we grant that these acts of subordination are mere acts of *analysis*. This is because the subordination of objects under concepts rests on the power of judgment [*Urteilkraft*] under sensible conditions. But since general logic concerns only the activity of the understanding [*Verstand*] in *abstraction* from sensible conditions, the acts whereby objects are subordinated under concepts cannot so much as come into view for the general logician. Second, as should be clear from my discussion of the generality of concepts, I think there are good reasons to question the claim that the generality of logic rests on the concept of an object. Indeed, the reverse seems to be true: the concept of an object in transcendental logic rests on the generality of (pure general) logic. As I'll suggest here, the generality of logic must be understood as the reflected representation of what is common to all *my* representations, not of what is common to all possible *objects* of representations.⁸⁵

⁸³In MacFarlane's version of the view, "Kant seems to regard the restriction of transcendental logic to objects capable of being given in human sensibility as a *domain restriction*, like the restriction of geometry to spatial objects. Thus, for instance, he says that transcendental logic represents the object 'as an object of the mere understanding', while general logic 'deals with all objects in general' (L: 15)" (MacFarlane 2002, p. 48n.). Here MacFarlane clearly assumes that general logic is general in the sense that it ranges over all *objects*.

⁸⁴This is MacFarlane's thesis in "Kant, Frege, and the Logic in Logicism" (2002). However, I think it is also implied by what Longuenesse and other proponents of the analytic approach say.

⁸⁵Many interpreters who adopt something like the 'analytic approach' attempt to impose charity on their readings of Kant by interpreting his logic as a precursor to modern mathematical logics. They take the distinction between intuition and concept to be akin to Frege's distinction between object and concept. But I think that we can be more

3.2 REICH'S SYNTHETIC APPROACH

The problems facing the analytic approach to Kant's conception of general logic warrant another look at Klaus Reich's classic attempt (3) to derive the logical functions from the "objective synthetic unity of apperception" in *Die Vollständigkeit der Kantischen Urteilstafel* (1932). Although Reich's work was widely discussed in the German-speaking world, there was little reception of it in Anglo-American philosophy until Longuenesse's ground-breaking work on *Kant and the Capacity to Judge* (trans. 1998). In that work, Longuenesse launched her defense of the 'analytic approach' outlined above through a criticism of Reich's ambitious attempt to reconstruct Kant's argument for the completeness of the table of logical functions of judging.⁸⁶ I agree with Longuenesse that Reich fails to acknowledge that all judgments, for Kant, are analytic unities, and that they involve *comparison* or *analysis*. However, in light of my criticism of the analytic approach, I do not think this feature of Reich's argument is what is most worrisome about his view. As I argue in the following, Reich also seems to illicitly introduce the concept of an object into his discussion of logical functions.

Reich notices that the analytic approach of his Neo-Kantian predecessors fits well with much of what Kant says about the genus-species subordination relations between concepts in the section on Concepts in the *Jäsche Logic* (Reich, p. 48). We may add that Longuenesse's version of the analytic approach also fits Kant's characterization of *judgment* as an act of ordering lower representations (including intuitions) under higher ones in the *Metaphysical Deduction*, where Kant says that "judgment is [...] the mediate cognition of an object, hence the representation of a

charitable to Kant if we follow his text closely, and refrain from introducing Fregean categories into his framework. We might then discover a conception of logic and logical form that may be superior to Frege's own.

⁸⁶ The German authors who engaged in post-war Reich-bashing similarly adopted an analytic approach in response to Reich. See especially Brandt (1991) and Wolff (1995).

representation of it” (B93). The example Kant gives to illustrate this is (at least in the fourth edition) the judgment ‘all bodies are divisible’, in which the predicate <divisible> is said to relate to various lower species-concepts, such as <bodies>, and to (possible) appearances falling *under* them.

However, as Reich and, more recently, Stephen Engstrom have noticed, when we turn to the section on *judgment* in the *Jäsche Logic*, Kant’s discussion of “subordination” [*unterordnen*] or of the “relation” [*Verhältnis*] among representations seems to undergo a change. For if Kant were still speaking of subordination in the above sense, we would expect the relation between two concepts in a categorical judgment to consist in the subordination of the subject under the predicate (just as “body” was subordinated under “divisible” in the example above). But Kant instead says that the predicate is subordinated to the subject, consequence to ground, and the members of a division to the divided concept (JL 9:104).⁸⁷ This suggests that the relations [*Verhältnisse*] among concepts in judgment ‘as such’ cannot be captured by the subordination relations among concepts in a Porphyrian tree, i.e. that they are not relations of mere comparison or analysis, but rather relations of *synthesis*. For instance, in the judgment ‘Socrates is white’, my thought of <white> modifies, and extends beyond, that of <Socrates>; this act of relating may be called an act of subordination only in the sense that my representation of <white> *depends* on (is ordered under) a given representation of Socrates. In the section of the logic on the syllogism, this dependence is revealed to be a grounding or explanatory dependence, since the nature of a

⁸⁷ Longuenesse also notices this discrepancy, but she attributes it to the role that judgments play in syllogisms (Longuenesse, pp. 93ff.). In a categorical judgment, for instance, the predicate is subordinated to the subject because the subject figures as a ‘condition’ for the assertion of the predicate in a syllogism. For instance, in the syllogism “All men are mortal; Socrates is a man; Therefore, Socrates is mortal”, ‘man’ is a condition for asserting of ‘mortal’ of Socrates, or for subsuming Socrates under the concept ‘mortal’. Although it seems right to say that judgments, at least in so far as they are universal, are potential premises of syllogisms, this cannot be all that is meant by the ‘relation’ that constitutes a judgment as such. For Kant takes the different forms of syllogism from the different relations in judgment, rather than taking the latter from the former.

substance (or middle term in a syllogism) can explain that substance's behavior and accidental attributes, but its attributes cannot explain its nature.

Klaus Reich concludes from this difference in the meaning of "subordination" in the section on judgment – I think too quickly - that the relations represented by the logical form of judgment must be synthetic relations among concepts through which a judgment relates to *objects*. Moreover, he restricts this "synthetic" conception of the understanding to the functions of "relation" and "modality" and relegates the functions of "quantity" and "quality" to the "analytic unity of apperception".

Reich's entire project of reconstructing Kant's argument for the completeness and systematicity of the table of logical functions is guided by those passages in which Kant suggests that the whole of logic must be attached to that highest principle, the synthetic unity of apperception (B134n.). On Reich's view, concepts, but not judgments, are what Kant calls "analytic unities": they are representations that are common to a manifold of other representations that fall under them. Kant says that the "analytic unity of apperception", or identity of the 'I think', which is the representation common to all of *my* representations, presupposes a "synthetic unity" (KrV B 135). According to Reich, this means that the identity of the subject presupposes a representation that *goes beyond* the mere subject, namely the concept of an object:

Let us direct our attention once again to the reflections that have provided us with the transition to the concept of an object. It was the reflection on the possibility that along with the consciousness of myself (not through it) something distinct from the mere thought 'I' is given to me. This possibility – so much is implied in the original pure consciousness of myself as 'I think' – necessarily requires a going beyond the mere 'I think'. It is an analytic proposition that this possibility cannot be actualized analytically, as could, for example, the consciousness of my spontaneity. It could only be actualized through a special act – that of synthesis. "Synthesis" is only a special name for the particular act whose consciousness is the consciousness that the "I think" must be capable of accompanying all of my

representations. That means that the concept of the object that alone has sense for me rests on the fact that, although I am conscious of myself in the “I think” as spontaneity, I am also conscious of myself as nonproductive, that is, if you will, as finite. I could only be productive as pure “I” if a determinate content of consciousness was given through my pure apperception. I, therefore, depend on a given manifold and must “think” this, that is, I must unite [*syntithenai*] this given manifold in a consciousness that is conditioned by the thoroughgoing unity of all consciousness. The fundamental principle that all representations given me must be capable of being accompanied by the ‘I think’ therefore implies the necessity of the possibility of uniting the entire manifold of representations given me “in a concept of an object”. For this reason, the unity of original pure self-consciousness is also called the objective unity of self-consciousness (Reich, p. 29).

We can understand Reich’s train of thought in this passage through the following example. It is an ‘analytic proposition’ that a bachelor is unmarried and male. But this analytic claim presupposes much that goes beyond the concept <bachelor>. In particular, it presupposes the institution of marriage and the social conditions under which bachelors are made possible.⁸⁸ In the same way, Reich thinks, it is an ‘analytic proposition’ that all my representations can be accompanied by the ‘I think’ (that is part of what it means for them to be mine). But this analytic proposition presupposes something that goes *beyond* the mere ‘I think’ (analytic unity) and that makes my representations *mine*. This is the spontaneous *synthesis* of a manifold given from elsewhere – a manifold that I (as a finite intellect) did not *produce*. It is only through their *combination* that representations become mine. Synthesis or combination is the act through which I combine the manifold into the complex representation *of an object*. Therefore, the ‘identity’ of the ‘I think’ (that common representation contained in all my representations) presupposes the concept of an object. If this is correct, there is no difference between the ‘synthetic unity of apperception’ and what Kant calls the ‘objective unity of apperception’. The *analytic* unity of apperception – that which is common to all my representations – presupposes

⁸⁸ This is an example Anton-Friedrich Koch uses in his elaboration of the dependence of “analytic” on “synthetic” unity. I think Koch follows Reich here (see Koch 2004, p. 157).

the synthetic act through which I produce the concept of something *other* than myself: the concept of an object in general.

So if the logical functions each have their source in the ‘synthetic unity of apperception’, they must, on Reich’s reading, each be derived from the concept of an object in general. Judgments are synthetic unities that, through synthesis, relate to an object (KrV §19). Reich thus tries to show what ‘functions’ of the mind are necessarily presupposed for relations to objects and in this way to derive Kant’s table of logical functions.

But if Reich is right, it looks as though Kant’s project will turn out to be circular. In the *Metaphysical Deduction* Kant purports to use the table of judgments, which he takes from “pure, general logic”, as a “leading thread” for the discovery of concepts of objects (the categories). But on Reich’s proposal we cannot understand the table of functions of judging independently of the objective or *determinate* use of those functions in relation to objects, precisely that use of those functions that is reflected by the categories (concepts of an object in general). So in order to understand the table of judgments, we must understand the categories, but the categories depend on the table of judgments. Reich must say either that Kant’s argument is circular or that there is no essential difference between transcendental and general logic.

To avoid this predicament we might try to pry apart the “synthetic unity of apperception” and the “objective unity of apperception”, which Reich has conflated. In those passages where Kant says that transcendental apperception is the source of logical form, he only mentions the *synthetic* unity of apperception (rather than its *objective* unity). For instance, in §12, Kant says that the comprehension [*Zusammenfassung*] of cognitions or “unity of concept”, which he later refers to as the “original-*synthetic* unity of apperception” (B131), “belongs to the *logical* requirements for every cognition” (my emphases; B114). The common principle for the

discovery of the categories is “the faculty for judging (which is the same as the faculty for thinking)” (A80/ B106). This faculty, the understanding, is identified with the *synthetic* unity of apperception at B134n., where Kant famously says that the “synthetic unity of apperception is the highest point to which one must affix all use of the understanding, even the whole of *logic*”. And the “possibility of the logical form of all cognition” is said to necessarily rest “on the relationship to this apperception as a faculty” simply because “every different empirical consciousness must be *combined* into a single self-consciousness” (my emphasis; A117n.).⁸⁹

These passages, along with the priority of logical functions over the categories in the *Metaphysical Deduction*, suggest that, despite Kant’s identification of the logical functions with the categories (e.g. A147/B187; P 4:324), and of the synthetic unity of apperception with the objective unity of apperception (B139), there is a perspective from which they may be considered as distinct. The understanding, that is, may be considered in isolation as a mere “synthetic unity of apperception”, or it may be considered in its cooperation with sensibility as an “objective unity of apperception”. This leads to the final ‘synthetic’ interpretation of logical form mentioned above (4): general logic abstracts from the core *use* of the faculty of thinking in *determining* objects, and considers only the *synthetic* unity that pervades all logical uses of the understanding, even mere thinking (entertaining a thought that does not amount to judging or asserting), and that has its source entirely in the understanding as a capacity to judge (and not in relations to sensible manifolds).⁹⁰

⁸⁹ Another suggestive passage is the section “on the supreme principle of all synthetic judgments” (A154/ B193ff.). Here Kant says that all synthetic judgments rest on “unity of apperception”, but he contrasts this with the requirements that must be fulfilled “if cognition is to have objective reality” (ibid.).

⁹⁰ The “objective unity of apperception” is the understanding in its *objective use*, or as it is (materially) *used* in determining a sensible manifold (in first actuality, prior to experience). For this reason Kant only introduces the concept of an “objective unity of apperception” once he has introduced the notion of a sensible manifold. It is only its relation to a sensible manifold that equips the understanding with the concept of an *object in general*: “The transcendental unity of apperception is that unity through which all of the manifold given in an intuition is united in

3.3 THE MERE SYNTHETIC APPROACH

3.3.1 Analytic and Synthetic Unity of Apperception

Our discussion of the analytic approach to the logical form of judging began with its interpretation of the “unity of consciousness of representations” that “constitutes a concept” from the general explanation of judgment in the *Jäsche Logic*, §17. As we’ve seen, the analytic approach assumes that Kant means to be speaking here of the “analytic unity” of consciousness, which it takes to mean the unity brought about through analysis of or reflection on given representations. If this unity of consciousness is to constitute a *concept*, it must be correct to say that it is an analytic unity. But is it right to say that analytic unity is brought about through *analysis*? There is little indication in the text that Kant uses the term “analytic unity of apperception” in this sense. In his official explanation of its meaning from the opening sections of the Deduction, he suggests that “the analytical unity of apperception” is “the identity of the consciousness in [my] representations”, not the *reflected* representation of that identity brought about through the logical acts of comparison, reflection, and abstraction (B133). The analytic unity of apperception that “pertains to all common concepts as such” is the oneness shared by a manifold of representations, or “common to several” (*ibid.*), not the consciousness of this identity that Kant refers to as *generality* of representation (“the concept is a general or *reflected* representation”: my emphasis; JL §1). And rather than saying that the analytic unity of

a concept of the object. It is called objective on that account [...]” (B139). Notice that the transcendental unity of self-consciousness is not objective because it contains a manifold *within* it, but because it is that *through* which a manifold is united and in this way first constitutes the concept of an object (B140). Moreover, it is not its *possible* use in uniting a sensible manifold that is at issue in this passage, but rather its actual use: “the manifold”, Kant says “*is united* in a concept of the object”. This means that the understanding, when characterized as an objective unity of apperception, is characterized through its material *use* or *exercise*.

apperception presupposes *analysis*, he says it presupposes “synthetic unity of apperception” (B133). In fact, the claim that “analytic unity” is the *result* of analysis or reflection seems to be incompatible with Kant’s requirement that *all* my representations, including non-discursive ones or *intuitions*, contain within them “identity of consciousness”, and for this reason must be capable of being accompanied by the “I think” (this, he suggests, is an “analytic proposition” at B138). Kant’s use of the term “analytic unity” in these passages suggests that it pertains to that which is identical or common to a manifold of representations, *whether or not* those representations are reflected or discursive. Analytic unity, or the unity of that which is contained in a multiplicity of representations, is here presupposed by, rather than the result of, reflection through discursive concepts. Thus we may assume that reflection merely brings out, or makes actual, the analytic unity or identity among different representations that was already contained in them, albeit potentially.⁹¹

Now, it is an “analytic proposition” that “the I think must be able to accompany all my representations” (B131; B135). Yet this principle “declares as necessary a synthesis of a manifold given from elsewhere” (B135). For it is only in virtue of the possibility of *combining* representations that they are mine: “only because I can comprehend their manifold in a consciousness do I call them all together my representations” (B134). That which makes all my representations *mine* is thus the possibility of an act of synthesis or combination. For this reason “the analytical unity of apperception is only possible under the presupposition of some synthetic one” (B133).

Is Reich correct in thinking that this synthetic unity goes *beyond* the identity or analytic unity of the ‘I think’? What Kant suggests in these passages is that the unity of an act of

⁹¹ Cf. Engstrom, “Unity of Apperception”, pp. 5ff. In the first chapter, I discussed the difference between this potential generality (or “in itself” generality) and the actual generality of concepts (or generality “for me”).

synthesis is precisely that which is *identical* in my representations, and so it is not something other than or *beyond* what the ‘I think’ expresses. This would mean that ‘synthetic unity of apperception’ and ‘analytic unity of apperception’ are two sides of the *same* ‘unity of consciousness’. In fact, if we look around for more passages in which the terms “unity of consciousness” and “unity of concept” occur, we discover that Kant uses these terms not only for the ‘analytic unity of apperception’, but also in relation to the original *synthetic* unity of apperception. In §12, just after the Metaphysical Deduction, Kant says that “unity of the concept” is what “one can call *qualitative unity* insofar as by that only the unity of the comprehension [*Zusammenfassung*] of the manifold of cognition is thought” (B114). The term *Zusammenfassung* suggests a holding together or *synthesis* of cognitions. Kant refers back to this passage in §15, in order to specify that this unity of concept just *is* that “higher representation” he calls the “original-*synthetic* unity of apperception” (my emphasis; B131).

Now, Kant explains that this qualitative or original-synthetic unity of consciousness is not the result of synthesis (“it cannot arise from the combination”), but instead is presupposed by it (“it first makes the concept of combination possible”) (B131). It thus cannot consist in forms of combination, but must be sought “higher” than these forms, in the *original* synthetic unity of apperception. We may better understand the sense in which this unity is original through Kant’s claim that the “synthetic unity of apperception” is a “faculty”, namely the “understanding” (B134). It is a *capacity* that gives rise to acts of synthesis, namely the faculty of spontaneity or understanding. The result of these acts are “synthetic unities” that contain a manifold within them, such as intuitions (which contain sensible manifolds) and judgments (which contain intellectual manifolds). Without an original unity of apperception, there would be no unities of manifolds, indeed no intuitions and no thought. For “the combination of a manifold in general

can never come to us through the senses”, but is instead “an act of the spontaneity of the power of representation” (B129): it is an act that has its *ground* in a spontaneous capacity. So just as the analytic unity of apperception is a unity *presupposed* by analysis, rather than a unity brought about through analysis, the original-synthetic unity of apperception is presupposed by synthesis (as the *capacity* for acts of synthesis), rather than the product of synthesizing activity.

3.3.2 Analytic and Synthetic Unity of Apperception in a Judgment

Since the understanding is a self-conscious capacity, it must be conscious of each of its acts as belonging to one and the *same self*. Kant argues that this “self” or “I” “lies already in the concept of thinking”, because it is nothing other than the *unity* of an act of synthesis in thinking (B407). So if I am conscious of this “I” in thinking, then thinking must involve consciousness of the manner in which the various representations in the thought – e.g. subject concept and predicate concept - belong to the unity of a single act of thinking. But this means that my consciousness of the unity of the whole judgment must precede my consciousness of its parts. (For instance, my consciousness of the copula must precede my consciousness of the use of a concept as subject, and the use of another concept as predicate.) For if the consciousness of the unity of the whole judgment *resulted* from prior consciousness of these parts, rather than preceding it, the parts too would be conscious of themselves only through their parts (the acts ingredient in the use of a subject concept), and so on *ad infinitum*.⁹² I would not be able to find any ground of the *unity of*

⁹² This does not mean that I cannot have a conceptual representation without using it in judgment. We can think of concepts in abstraction from their use in judgment (the first section of the Jäsche Logic does this!). But we cannot represent *the use* of a concept – e.g. its use as a subject-concept – independently of representing the unity of the whole judgment.

the whole within my representations at all – I would be left in the Humean predicament of there being nothing “simple and continued” within me that I could call *myself* (*Treatise*, p.252).⁹³

This consciousness of the unity of a judgment, which precedes consciousness of its parts, must be the same as the unity it is conscious of in order to be *self*-consciousness. It precedes the consciousness of the parts of the judgment by constituting their unity in a single act of synthesis or combination. So the unity of a judgment is the original-*synthetic* unity of apperception, which is presupposed by the parts of the judgment. Since it is also contained in and common to each of these parts, it is *also* an *analytic* unity of apperception. When Kant says that judgment “as such” [*Urteil überhaupt*] is “the representation of the unity of the consciousness of various representations”, he means that judging consists in the representation of the unity of an *act of synthesis* that is common to those representations.

The second half of the explanation elaborates on this: “...or the representation of their relation [*Verhältnis*] insofar as they constitute a concept”. In a judgment, I represent the *relation* of representations insofar as this relation (act of combination) is common to each of the representations and thus constitutes a concept (the concept of ‘Mineness’, or more specifically, of the particular form of judgment at issue). As we have seen in connection with Reich’s reading, the relation [*Verhältnis*] here is not one of *analysis* or logical concept-subordination, but rather of *synthesis* (subordination of a predicate-concept under a given subject-concept). So judging consists not in the mere subordination of representations under higher concepts (of subject under predicate), but rather in the subordination of representations under the concept of my act of

⁹³ Since the unity of the self is to be understood as the unity of understanding (or of reason in the broad sense), Hume’s skepticism about the self can be understood as a skepticism about the possibility of reason. In Kant’s assessment, Hume “believed himself to have discovered in what is generally held to be reason a deception of our faculty of cognition” (B128).

synthesis.⁹⁴ It is not sufficient that subjects think in accordance with logical functions of the understanding. For their thinking to be genuine thinking, it must be an act of synthesis from *consciousness* of this act, a consciousness that can be reflected through a concept.⁹⁵ The judgment “constitutes a concept” when it is brought to self-consciousness.⁹⁶

According to Kant, it is essential to the discursive nature of our intellect that the ‘function’ or ‘unity of act’ that is brought to consciousness through a concept in judgment is a *simple* unity, or as we have said, a unity that “precedes” the parts of the judgment. This means that it cannot be divided, but can only be contained in (or shared by) the parts of the judgment. It is a “simple representation” (KrV B135) because it contains no manifold within it; it is the ground of an act of synthesis that relies on a manifold given from elsewhere. The unity of consciousness may have different ‘moments’, listed in the table of functions of judging, but this does not jeopardize its *simplicity* and *indivisibility*. For these moments are not to be understood as *parts* out of which it is constituted, but rather on the model of functions that execute the overall function of an organ. Like the expansion and contraction of the lungs that each contribute to breathing, the functions of judging contribute to the overall function of the understanding. They are each ways in which unity is given to a manifold, or ways in which the simple original-synthetic unity of apperception executes its function. They must be *formal* in the sense that they

⁹⁴ The logical explanation of judgment is concerned with “judgment as such” [*Urteil überhaupt*], rather than with all kinds of judgments, because it explains the core or *primary* use of the understanding, its use in *synthetic* judgments only. Here I follow Reich in distinguishing between *Urteil überhaupt* and the class of all judgments (cf. Reich, p. 17). Brandt criticizes Reich for having introduced this term into Kant’s text in his discussion of the *Metaphysical Deduction*. Although Brandt is right that it does not occur in the passage at A 69 that Reich refers to, Brandt overlooks its occurrence in the logical explanation of judgment from the *Jäsche Logic* (§17) (cf. Brandt, p. 19).

⁹⁵ It is important to note that this self-awareness in the act of thinking is not the privilege of the logician. In the *Dohna-Wundlacken Logic* Kant distinguishes between the “logic of the healthy understanding, *sensus communis*” and “the logic of the speculative understanding; this gives rules *in abstracto*” (24: 696). In everyday thinking (common understanding), we are aware of the forms of thought *in concreto*. What the logician does is merely to bring those same rules to consciousness *in abstracto*.

⁹⁶ Self-awareness has degrees of clarity. I may be only obscurely aware of myself – or I may be clearly and distinctly aware of myself in thinking. This corresponds to Kant’s distinction between clear and obscure cognitions (JL 9:62).

can be considered in abstraction from particular contents of cognition, because the understanding cannot produce content through self-activity (*Selbsttätigkeit*) alone.

How is this interpretation of the synthetic unity of apperception as a *simple* unity compatible with Kant's claim that this unity is "the unity of the comprehension [*Zusammenhang*] of the manifold of cognition", or the unity of the *whole* of cognitions, in §12? Kant often uses the term *Zusammenhang* to indicate that cognitions together form a system under a principle (e.g. B89, B673, B362). The unity of cognition is "systematic" in a sense that contrasts with "rhapsodic": cognitions are not compiled together in the manner of an aggregate and are not a "unruly heap", but have an underlying theme or principle of unity, as in a speech or play (B114; cf. A121, where "bestimmter Zusammenhang" is contrasted with "regelloser Haufen"). This might suggest that the unity of judgment is like that of a speech or play, in that the former contains concepts just as a speech contains parts. But this would be a misreading of the analogy. The "unity of comprehension" is said to be analogous to the *theme* of a speech, not to the entire *series* or whole of temporal phases that comprise a speech. In a speech or play, the representation of an underlying theme gives unity to the whole speech, but is not itself the representation of a whole *containing* parts. I may think of "the complexity of racism in America" as the theme of a particular speech, but I do not thereby think the parts of the speech it unifies. The unity of a speech or play is not like the unity of an intuition, which is a whole that already contains parts within it (e.g. spatial or temporal parts). It is a *discursive* unity, or the representation of a *simple* unity that *precedes* its parts by giving each of them a position in the whole.

3.3.3 Two Senses of “Logical Form”

Kant acknowledges two ways in which functions of thinking in judgment involve consciousness of synthetic unity, corresponding to two senses of “logical form”. First, there is the unity of thought that is *constitutive* of all thinking and judging, and second, there is the unity of thought that is *regulative* or a *norm* for acts of thinking.

The *constitutive* condition of unity is expressed by the principle of contradiction. In a contradiction, there is no synthetic unity, no relation, because the two concepts entirely exclude one another: I cannot become conscious of ‘thinking them together’ in one consciousness.⁹⁷ But if I cannot be conscious of thinking them together (i.e., accompanying them with the ‘I think’), then they also cannot be together in one consciousness (i.e., they cannot be ‘mine’). The logical impossibility of contradictions is thus also a kind of psychological impossibility, understood as an impossibility of thinking a contradiction.⁹⁸ From the impossibility of thinking a contradiction, it follows that contradictions cannot be possible contents of thoughts.

This account is a natural complement of a conception of thinking as a self-conscious exercise of a rational capacity (rather than as an event accessed through a receptive power of inner sense, which may or may not conform to principles of rationality). A contradiction is a false thought in the sense that it is false to call it a thought at all. Several passages in Kant confirm this reading:

⁹⁷ Kant’s notion of logical consistency is foreign to contemporary quantificational logic. Whereas the latter construes the consistency of thoughts in terms of the possibility of their being *true* together, a judgment (which is either a combination of concepts or of judgments) is consistent for Kant in virtue of its *synthetic unity*.

⁹⁸ Since thinking is not an empirical process, Kant’s point about the logical conditions of the possibility of thought is not an empirical-psychological claim. However, since all acts of thinking are *also* determinations of inner sense (they affect the mind), Kant’s claim that contradictions are *impossible* also means that they cannot affect the mind through inner sense, and so this claim about the impossibility of contradictions *entails* an empirical psychological claim.

the general though to be sure only negative condition of all of our judgments whatsoever is that they do not contradict themselves; otherwise these judgments in themselves (even without regard to the object) *are nothing*. [...] Now the proposition that no predicate pertains to a thing that contradicts it is called the principle of contradiction [...and it] belongs merely to logic, since it holds of cognitions merely as cognitions in general, without regard to their content, and says that contradiction *entirely annihilates and cancels* them (my emphases; *KrV* A150/ B189).

[W]hatever conflicts with [the principle of contradiction] is obviously nothing (not even a thought) (*On a discovery*, 8:195).

The logical mark of the impossibility of a concept consists, then, in this: that under the presupposition of this concept, two contradictory propositions would be false simultaneously; and since between these two no third proposition can be thought, through this concept *nothing at all* is thought (P 4:341).

The principle of contradiction thus marks, for Kant, a limit of discursive space beyond which thought is impossible. But we should not understand this to mean that the principle *constrains* our thinking, or that it represents an external imposition on thought. Various concepts are held together in a thought through “synthetic unity of apperception”. Kant refers to this unity sometimes as a capacity, for instance when he identifies it with the “faculty [*Vermögen*]” of “understanding” at B134n., sometimes as a “principle”, as in the title of §17: “the principle [*Grundsatz*] of the synthetic unity of apperception is the supreme principle of all use of the understanding” (B136). This reflects the two sides of synthetic unity of apperception: it is both a *capacity* that is actualized in the synthetic unity of a manifold of representations (thought) and *consciousness* of itself as a capacity *for* synthetic unity (i.e., it is *both* synthetic unity *and* apperception). Whereas non-rational capacities may be exercised without consciousness of the rule or principle in accordance with which they are exercised, the capacity to judge is exercised through consciousness of what it is a capacity *for*, and hence through (at least implicit) consciousness of its principle. The principle of synthetic unity of apperception thus does not limit or constrain, but *defines* the capacity to judge, as a capacity to bring about a synthetic unity through consciousness of it. Now, the principle of contradiction merely articulates a constitutive

or necessary (“negative”) condition of synthetic unity – namely, absence of contradiction. It therefore does not constrain the capacity or limit it externally, but belongs to the conditions that constitute the capacity, and thus to the conditions of the possibility of its acts. The principle of contradiction determines what I *can* think in an immanent way, by belonging to the principles that are constitutive of my *capacity* to think.⁹⁹

This *immanence* of logical form or logical consistency in our thinking extends far beyond what we sometimes call the ‘form’ of thought. According to Kant, a contradiction within a (putative) judgment rests on the inconsistency of the materials of thought, and is not (as we are accustomed to thinking) an instance of the schema $A \ \& \ -A$, where A stands for a proposition.¹⁰⁰ In the schematic representation of contradiction (familiar to us from contemporary logic), the form or ‘schema’ is entirely indifferent to its materials, or to the content of the proposition that may replace its schematic letter. For Kant, by contrast, the logical contradiction rests on the opposition among the *contents* of *concepts* that results from the negation of an analytic judgment. In a genuine thought, the concepts must be in agreement with one another in a minimal sense: they cannot *entirely exclude* one another (as, for instance, <bachelor> and <married> do).¹⁰¹ So the possibility of the unity of a thought rests on the suitability of its

⁹⁹ This account of the role of principles of rationality in determining *what I can think* may seem very similar to a Fregean view of thought (cf. Frege, “Thought” and McDowell 2005, p. 47f.). However, there are two caveats. First, because Frege thinks that the laws of logic are laws governing thoughts, and not the thinking of them, there seems to be no reason for him – from the perspective of *logic* – to deny the possibility of thinking illogical thoughts. McDowell, in discussing the individuation of thoughts through principles of rationality, adds the condition that the subjects of thought are *rational* (a condition that does not need to be added, on the Kantian view). Second, whereas Frege is concerned in these passages with the question whether two temporally distinct acts of thinking are the same thought, Kant is concerned with thinking as a non-temporal act of the mind (i.e. as an act that cannot be intuited). Hence, Kantian “determination” of what I can think is not the same as Fregean “individuation” of thoughts.

¹⁰⁰ In fact, one could argue that all synthetic judgments, for Kant, contain a mere thought of the form $A \ \& \ -A$, since the negation of what is known synthetically can always be thought.

¹⁰¹ Lest one think that consciousness of opposition transcends the domain of general logic, it is important to recall that “opposition and agreement”, like “identity and difference”, are concepts of reflection (KrV A262/ B317ff.). Opposition is a concept of mere “logical reflection” if it is the kind of opposition that results from the negation of an *analytic* judgment or inference (but not if it is a ‘real opposition’, such as the opposition between red and blue).

materials for their unification in a single consciousness. That is, the materials must conform to the form (synthetic unity) of the thought by containing the possibility of their (synthetic) unity with other concepts *within* them. Logical consistency, as the form of all thought, thus *descends* all the way down to the materials of the judgment.¹⁰² But it also *ascends* to the possibility of synthetic unity of a judgment with other judgments in a single act of the understanding. Since the synthetic unity of apperception must be shared by all of my representations (to be mine), judgments too must be in agreement with one another in this minimal sense: they must be logically consistent, or capable of belonging to a single ‘unity of consciousness’ as materials of the systematic whole of cognitions. The principle of contradiction thus brings to light the constitutive interdependency of elements of thought and judgment.

Only if we are tempted to think that the form or unity of a thought is entirely indifferent to the possible materials that enter it may we think that thoughts have unity even when their concepts entirely exclude one another. The unity of the thought will then be understood in absolute separation from its materials (the thought ‘this bachelor is married’ will be said, for instance, to have the unity expressed by the Fregean form of a simple thought: ‘Fa’).¹⁰³ But such views face severe difficulties in accounting for the *relation* between the unity of the thought and the elements unified. Since these elements (materials) do not already contain (implicit) consciousness of the possibility of their unity with other elements, they cannot be brought to consciousness through an act of *self*-consciousness (i.e., through my thinking them together in

¹⁰² Kant’s formulation of the principle of contradiction is as follows: “no predicate pertains to a thing that contradicts it” (A151/B190). Kant wishes to allow for the possibility that a man may be both old and young, since he is young at one time, and old at another time. What the principle excludes is the thought that a *young man* is old. What it means for a predicate to contradict a *thing* is for the predicate to contradict the ‘mediate’ representation of the thing, or the use of the subject-concept in judgment. Thus, the principle articulates the conditions that concepts must fulfill to enter the unity of a single thought, and in this sense descends down to the elements of that thought.

¹⁰³ Here I am pressing Fregean unity of thought into a service Frege did not intend it for, namely for expressing the unity of an act of thinking.

one consciousness). And so my consciousness of the elements of the thought will need to be related to consciousness of its unity through a third act of consciousness (a relation). And this relation in turn will need unification with its *relata* through a further consciousness, and so on *ad indefinitum*. This problem is not faced by Kant's account, since Kant accounts for consciousness of the elements of thought through consciousness of the possibility of *thinking* them in one consciousness; their possible synthetic unity thus is not external or alien to them, but constitutive of them *as* elements of thought.

We can now see why, for Kant, logically structured thoughts are not independent of the thinking of them.¹⁰⁴ Rather than asking how our acts of thinking can conform to complex objective logical contents (or laws of truth), Kant's logic reverses this ordering and asks how the contents of thought must be to conform with the principles governing our acts of thinking them. The logical unity of a thought thus is inseparable from the (a priori) 'psychological' unity of the subject as a synthetic unity of apperception.

The above account of logical consistency accounts for one aspect of the unity of thought, namely the presupposition of bare agreement among the different contents of concepts (or judgments) in a single act of thinking. As we have seen, this is an instance of the agreement of thought with the principle of "synthetic unity of apperception" (a principle that does not figure in the analytic approach to logic). But Kant *also* thinks that the unity of a thought expresses the possibility of its communicability, or of bare agreement among thoughts of different *subjects*.

¹⁰⁴ If Kant is right, then contemporary discussions of belief-forming mechanisms will appear to be somewhat fishy. These discussions often assume that the logical laws are (objective) laws that govern the contents of thoughts, and *then* ask how we get our thinking to conform to these laws. Kant's logic suggests that we approach these issues from a different perspective. We should think not about how our thinking can conform to the laws of logic, but how contents of thought should conform to the logical laws of our capacity to think.

That is, it expresses the possibility that other subjects can think the same thought.¹⁰⁵ This is guaranteed by the agreement of the thought with the ‘I think’ or “*analytic* unity of apperception”, which as we have seen is the form of all concepts (generality). Since the ‘I think’ is a universal concept that can be shared by any thinker, it is essential to thinking that others *can* share my thoughts, in the sense that they can think or understand the same thoughts. We are confident that others can understand what we think not from observations of their reactions to our words, or from any empirical data, but *a priori*, from the ‘agreement’ of our thought with its logical form, the ‘I think’. For, as we have seen, we have a grasp of what *can be thought by anyone* (or of a *general* capacity) prior to our being affected by the acts of thinking, namely, through self-consciousness in the act of thinking.

Mere thinking thus expresses both agreement among ‘internally’ different thoughts, or thoughts (and concepts) that differ in *content*, and agreement among ‘externally’ different thoughts, or thoughts that are the same in content but thought by different subjects.¹⁰⁶ Both of these aspects of ‘mere thinking’ are essential to any exercise of the understanding. But in mere thinking that does not amount to cognition (*Erkenntnis*), the elements of thought are related to one another only arbitrarily: “I can think whatever I like, *as long as I do not contradict myself*” (my emphasis; Bxxvi). Merely entertaining a thought does not involve any presumption that one is thinking as one *ought* to think. That is, the elements of the thought do not share any ‘internal’ *necessary* relation to one another. They must – with respect to their contents – be able to be unified in a logically consistent thought (as we’ve seen), but there is no determinacy, for

¹⁰⁵ One might add here: “under conditions in which other subjects exist”. The principle of analytic unity of apperception certainly doesn’t guarantee that others exist.

¹⁰⁶ For this interpretation of the unity of thought I have relied heavily on Stephen Engstrom’s discussion of the logical conditions of thought in his 2009, ch. IV. Kant himself uses the terms ‘internal’ and ‘external’ to refer to self-agreement and agreement with others in various places throughout his logic lectures (e.g., D-W 24:721).

example, as to whether a given representation belongs in the subject position or predicate position (I can think ‘all bodies are divisible’ or, by conversion, ‘something divisible is a body’ KrV B128). *A fortiori*, mere thinking also lacks the ‘subjective necessity’ that others share my thoughts, or that they *agree* with me in my thinking. For since I do not stake a claim to things being thus and so, I do not demand that others *should* think in the same way.¹⁰⁷

Kant’s main concern in general logic is not with forms of mere thinking, but with ‘forms’ of thinking in *judgments*.¹⁰⁸ Judgments are, in the core sense, *cognitions* [*Erkenntnisse*] that contain not only synthetic unity, but *necessary* synthetic unity, the kind of unity that is brought to consciousness through a *rule* or norm (hence the ‘*regulative*’ sense of form).¹⁰⁹ For instance, the copula expresses the rule that P belongs to S, not the other way around, affirmation the rule that S is P, which *excludes* the opposite (S is not P). It is often mistakenly assumed that Kant’s logical forms of judgment could be accounted for in truth-functional terms. But from a Kantian perspective *none* of the truth-functional connectives are suitable for expressing forms of judgment as cognition. This is because they do not express any *necessary connection between*

¹⁰⁷ Kant sometimes characterizes the indeterminate use of the logical functions in mere thinking as a “merely logical use” of the understanding (e.g., at B128). But this does not entail that *general logic* must restrict itself to this “merely logical use” of the understanding. General logic can also consider the determinate use of the logical functions, because this “determinate use” is to be understood as the effect of the *self-determination* of the understanding (not the determination of the understanding from a foreign source). (I will say more about this later on.)

¹⁰⁸ The difference between knowing or judging and mere thinking may be thought as a (more extreme) analogue of the difference between virtue and mere continence in the practical case. Only the virtuous person is unshaken in her dispositions to obey the moral law. She is not easily persuaded to act against it because of the strength of the causality of her will. Even in the face of the most terrible evils she will not ‘lose’ herself to rage, but will act with the spirit of calm and “facility” [*Leichtigkeit*], like Nathan the Wise in front of the funeral pile (see *Metaphysics of Morals*, 6:407; KpV 5:152f.). The merely continent character, by contrast, is full of inclinations that she needs to overcome when she acts morally. Her action lacks the facility and ease of the virtuous person, whose inclinations seem to support, rather than oppose, virtuous action. Similarly, one who merely thinks a thought without judging it has no response to challenges from without; she easily ‘changes her mind’ when influenced or persuaded by others. One who judges or cognizes, by contrast, does not waver in the face of prejudice and stupidity; all of her representations mutually support one another.

¹⁰⁹ This is clear from Kant’s discussion of judgment in the first half of the deduction. Kant does not only emphasize the “necessary” character of judgment in those passages, but also its “objective” character. General logic abstracts from relations to objects and concerns only the necessary character of the act of judging.

the materials of thought.¹¹⁰ The truth-functional disjunction ‘ $p \vee q$ ’, for instance, may be true independently of any necessary relation between p and q (p and q may, for instance, stand for the propositions ‘all philosophers are awkward’ and ‘the moon is made of cheese’). A disjunctive judgment in Kant’s logic, by contrast, requires that both disjuncts are related to one another within a “whole sphere of cognition” in which they are *opposed* (JL §28). The universal quantifier also does not represent the synthetic unity of a Kantian universal judgment. A universally quantified proposition expresses, for instance, that for every thing x , if it (x) happens to be a “man”, then it (x) also happens to be “mortal”. But it does not express any connection between what it is *to be a man* and what it is *to be mortal*.

To say that a judgment has ‘necessity’ is to say that it makes a claim to “necessary validity”: it claims to be such that it is *determined* that its materials belong together in this manner and not in an opposed manner. It is determined in the sense that it is grounded, or can be supported through reasons, not in the sense that I was made to think this way through prejudice or persuasion. For instance, if I judge that ‘Socrates is mortal’, the representations in the judgment are held together in a necessary unity not because I was forced to think them together, but because I claim to know *why* he is mortal. I judge in this manner from consciousness that I *ought* to judge in this way. The judgment thus has an *inner* source of necessary unity, rather than being the result of external influence.¹¹¹ This sense of logical form differs from the first because it is *not* arbitrary which *materials* (concepts) belong, for instance, in the subject or predicate positions in the judgment. The materials (concepts) must be such as to contribute to *this* ordering and connection, enabling the judgment as a whole to sustain challenges from without and to

¹¹⁰ This is especially evident with conjunction (&), which seems to express no more than the aggregation of *two* acts of thinking.

¹¹¹ The understanding itself is “a unity that subsists on its own, which is sufficient by itself, and which is not to be supplemented by any external additions” (A65/ B89-90).

positively maintain itself; due to the necessary or internal agreement among concepts in a cognition, it does not have the fleeting, arbitrary character of a mere thought.¹¹²

A judgment is self-sustaining in this manner only if it is also ‘held together’ in a necessary unity with all of my other judgments. If a given thought conflicts with other cognitions, it cannot be true that I ought to judge it. Genuine cognition must belong to a whole of cognitions that each stabilize one another through mutual support and that, together, suppress opposing or incompatible representations. Kant believes that the *logical* source of the necessary unity *within* a judgment is its agreement not with the objects of judgments (correspondence or truth), but with the form of a systematic whole of cognitions, in which each judgment has a necessary role. All judgments have necessary unity in virtue of the “necessary unity of apperception”, or unity of all cognitions together in a whole of cognitions (see B142).

This necessary unity of apperception may be better understood by contrasting it with the necessary unity of an acquired *habit* or *custom* [*Gewohnheit*].¹¹³ When I do something merely out of habit, as when I habitually think “red” upon hearing “rose”, my representations can each be made intelligible independently of their belonging together in my habit of associating them. The unity of the habit presupposes the unity of each of the actions belonging to it, rather than being presupposed *by* each of these actions, because the habit is brought about by the effect of these representations (over time) on the mind. The ‘determinacy’ of my habitual associations is thus contingent on those representations that happen to have this effect; it is in this sense arbitrary that the thinker associates representations in *this* manner rather than in an opposed way.

¹¹² See Engstrom, “Unity of Apperception”.

¹¹³ In the deduction, this contrast appears as a contrast between the “necessary” and “objective” unity of judgment (§19) on the one hand, and the “subjective unity” of empirical associations (§18), on the other hand. Since general logic abstracts from objective validity and concerns itself only with the necessity of the act of judging, the contrast to focus on in general logic is that between the necessary and the arbitrary (not the objective and the subjective).

Unlike habits, whose unity is composed out of the effect of representations on the mind, and hence is the unity of an aggregate, the understanding or capacity to judge is a unity that is presupposed by, and *constitutive* of, the acts that fall under it. The use of the subject-concept “rose”, for instance, is not intelligible outside of the unity of the act through which it is combined with the predicate-concept, “red”.¹¹⁴ This is because their unification in one consciousness presupposes my consciousness that they ought to be thought together in this manner. No act of thinking can be an actualization of a rational capacity independently of its materials belonging to a rational order of relations (a synthetic whole of cognitions) that the subject *represents*.¹¹⁵ One might compare this original unity of the understanding to a system of “perfect justice”, which (*actively*) places each action in its proper position (*Stellung*) in the whole community of actions, by punishing wrongdoings and rewarding good deeds (cf. A73/B98). The original synthetic unity of cognition is a capacity that holds all acts of cognition together in their proper position, excluding inconsistent representations and retaining those that agree with one another, in order to ensure that the understanding is *in necessary agreement with itself* (i.e., with its own principle of necessary synthetic unity).¹¹⁶

¹¹⁴ I have learned here from Andrea Kern’s discussion of the difference between the unity of habits and the unity of rational capacities; see Kern, pp. 194ff..

¹¹⁵ See Rödl 2007, ch. 3.

¹¹⁶ From these reflections on the ‘necessary unity’ of judgment we can begin to see why Kant adheres to the traditional conception of judgment as a unity of *concepts*, and why he would not accept a Fregean account of judgment as a unity of a concept and an *object*. The necessary unity of a judgment consists in the necessary agreement of acts of the understanding (concepts) *with one another*, due to their agreement with the principle of synthetic unity in accordance with which the understanding is exercised. The necessary unity of a judgment thus expresses the necessary agreement of the understanding’s acts with itself (i.e., with its own laws), rather than (in the first instance) agreement with an object. Since the Fregean conception of judgment as a function taking an argument cannot express this *self*-agreement of a judgment, Kant would not accept it as belonging to the logic of judgments. There are further reasons for rejecting the Fregean account within *transcendental* logic. These have to do with Kant’s conception of intuition. Intuitions cannot figure as the subjects of judgments, because the unity of an intuition rests on the self-determining acts of understanding in judgment. That is, the necessary unity of a sensible manifold that constitutes the object of cognition is *due* to the necessary *unity* of intellectual manifolds (concepts) in a judgment.

Not only does the logical form of cognition express “necessary validity” in the above sense; it also expresses subjective “universal validity”, since a cognition is not only valid for me, but “at all times for us and for everyone else” (P 4:298). Thus, when cognitions differ ‘externally’ in the sense that they are judged by different subjects but have the same ‘content’, they agree with one another in a necessary (non-arbitrary) manner: it is not an accident that you agree with my judgment that $2+2=4$, since my judgment expresses a *cognition*. Like the communicability of mere thinking, the universal validity of judging does not rest on empirical observations that other subjects are prepared to judge in the same manner as I do (when in conditions similar to my own), but on the judgment’s agreement with its *a priori* universal logical source (the understanding). We can be conscious that others will agree with our judgment (i.e., will judge in the same manner as we do), provided nothing interferes, since we are conscious of the judgment’s agreement with the universal, necessary synthetic unity of apperception (i.e., with the form of a whole of cognitions). Since the logical form of judgment expresses *universal* validity in this sense, we find throughout Kant’s logical lectures and reflections an attack on what he calls “logical egoism”, or the view that agreement with others is an unnecessary criterion of wisdom (or truth) (ibid., VL 24:873-74, LP 24:428, R 2269 (16:293), R 897 (15:392)).

Most interpreters of Kant assume that the necessary or rulish character of the act of judgment, which I have said belongs to Kant’s general logical account of the functions of judging, rests on the relations of judgments to *objects* and hence involves the perspective of the *transcendental* logician. It is true that *objective* validity or truth rests on material grounds, and thus does not belong within the purview of general logic; but Kant maintains that *in any* objectively valid cognition, my representations are in agreement not only with the object, but

also with *themselves*. It is the necessary and universal *self*-agreement among my representations in an act of cognition that has a purely *formal* ground and that can be considered in abstraction from the sensible conditions under which alone it is possible. Indeed, cognition must be *self*-determined in this sense if it is to be distinguished from prejudice, persuasion, and influence. That is, the determinate use of the logical functions must be due not to the effect of sensibility on the understanding, but to the understanding's own act of self-determination (under sensible conditions). Kant suggests this when he says that the *categories* "determine the logical form of judgment" (P 4:316). For the categories themselves are functions or forms of thinking (P 4: 314). (We will return to the issue of self-determination in the chapter on inference.)

3.3.4 The Organic Unity of Judgment

The two senses of the logical form of a judgment that we have distinguished correspond to two senses in which the understanding is a unity. According to the first, 'thin' sense of unity, the understanding is the unity of logically consistent, but arbitrarily combined representations. The idea of logical consistency is too meager to help us understand *wherein* the relation of concepts in a judgment consists. Logical consistency provides a merely negative account of judgment (absence of contradiction) but tells us nothing positive about the functions of judgment themselves. We must turn to the second sense of unity, the necessary unity that belongs to *cognition*, to find a clue for the discovery of *functions* of judging. The positive notion of a function invokes the idea of a *telos* or *purpose*: functions are activities that fulfill some purpose. As we have seen, the inner purpose of functions of judging is the maintenance of the necessary unity of the whole of my cognitions. In this respect they are like the functions of an organism,

which contribute to the maintenance of the individual (and its species) as a whole.¹¹⁷ Kant often compares reason or the understanding in the broad sense to an organism: “pure speculative reason”, for instance, is said to be “a truly articulated structure of members in which each thing is an organ, that is, in which everything is for the sake of each member, and each individual member is for the sake of all” (KrV Bxxxvii).

This suggests that it would be incorrect, on Kant’s view, to describe the logical aim or purpose of all cognition to be agreement with a given *object*. That is, the exercise of cognitive powers is not in the first instance to be understood as an effort that ends, or is exhausted, with possession of the *truth*. Our cognitive powers have instead the inner aim of bringing all representations into the unity of a self-sustaining activity of cognition, such that they rely on nothing outside of themselves for the continued activity of the whole. Truth is an aim of the intellect only insofar as it belongs to this inner purpose of our cognitive faculties; for there can be no objective validity in cognition if my representations do not agree among themselves: “the question whether cognition agrees with its objects must be preceded by the question of whether it agrees with itself (as to form)” (JL 9:52; cf. KrV A104-5).¹¹⁸

Just as the organic functions of a body belong to the purposive activity of the whole organism, the functions of judging belong to the form of a whole of cognitions to which they contribute. This is expressed by Kant’s definition of a function:

By a function, however, I understand the unity of the action of ordering different representations under a communal [*gemeinschaftliche*] one (A68/ B93).

¹¹⁷ Kant complained that traditional logicians did not determine “wherein th[e] relation” between two concepts in a judgment “consists” (B140-141). I surmise that they failed to give a positive account of this relation because they lacked an appreciation of synthetic unity of apperception as the highest principle and ‘purpose’ of all acts of the understanding.

¹¹⁸ I thus disagree with Meerbote’s claim that the purpose of the understanding is “the meeting up of the given in nature with some particular function or functions” (Meerbote, p. 852). I think this reading overlooks the inner purpose of the understanding in sustaining *itself*. Only if we understand truth as subordinated to this aim can we understand it as the non-accidental truth of cognition, which Kant calls “objective validity”.

Interpreters frequently take this to mean that a function is the unity of an act of *subordination* under higher concepts (under common representations) in judgment. But this may be due to a false rendering of the German “*gemeinschaftlich*” into English: in the Guyer/Wood translation, it appears as the English “common”, which in German would be “*gemeinsam*”.¹¹⁹ A more literal translation of the German here is “communal”. The difference is significant. The idea of a *system* is closely related to that of *community* [*Gemeinschaft*] (or the disjunctive syllogism) in Kant’s elaboration of this idea in the *Dialectic* (A323/B379-80). So a function is the unity of acts that order representations under the form of a *systematic* or *communal* representation that is prior to the parts belonging to it. This form of a whole of cognitions is called “qualitative unity” and said to be a “logical requirement” that guides the understanding in all of its activities at B114.

It is important, at this juncture, to flag a possible misunderstanding. Above we said that functions express *norms* of judging, or that they are regulative (rather than merely constitutive) for judging. This way of speaking is justified by the fact that the functions each contribute to an inner *telos* of necessary synthetic unity in my cognitions. In other places, Kant seems to refer to the same unity of a whole of cognitions as a regulative “idea” or “maxim” of reason. In the *Dialectic*, for instance, Kant speaks of the unity of a whole of cognitions as a “complete” or “thoroughgoing” unity:

If we survey the cognitions of our understanding in their entire range, then we find that what reason quite uniquely prescribes and seeks to bring about concerning it is the systematic in cognition, i.e., its interconnection based on one principle [*Zusammenhang aus einem Prinzip*]. This unity of reason always presupposes an idea, namely that of the form of a whole of cognition, which precedes the determinate cognition of the parts and contains the cognitions for determining *a priori* the place of each part and its relation to the others. Accordingly, this idea postulates complete unity of the understanding’s cognition, through which this cognition comes to be not merely a contingent aggregate but a

¹¹⁹ Thanks to Stephen Engstrom for pointing this out to me.

system interconnected in accordance with necessary laws. One cannot properly say that this idea is the concept of an object, but only that of the thoroughgoing unity of these concepts, insofar as the idea serves the understanding as a rule (A645/B673).

The *complete* systematic unity of cognitions, Kant argues, is a regulative ideal of reason that guides the understanding in all of its acts, but it is an ideal that cannot be attained by finite intellects. It should, in this respect, be carefully distinguished from the synthetic unity of the whole of cognitions from B114, which, as a “logical requirement” of cognition, regulates and guides the understanding in its acts as an inner purpose or end that *can* be fulfilled. Indeed, we would be wrong to ascribe an organic conception of logical functions to Kant if the purpose of these functions remained forever beyond their reach, as a *focus imaginarius* to which they might at best asymptotically approach. For the idea of organic unity implies that the activity of the whole has its end in itself, or that it *manifests* its end.

I think that this can be brought out and clarified through a closer look at Kant’s conception of synthesis in judging as a “self-activity” [*Selbsttätigkeit*] of the understanding (B130). This is a large and complicated issue, and not one that I can fully address in this dissertation. But a few remarks are in order.

Kant himself does not say very much about what he means by “activity” in this context. But it would be odd to say that one is engaged in an activity like knowing (cognition) without already completing that activity, i.e. without already having knowledge. Knowing, and hence judging, seems to be a different kind of act from what Aristotle called a ‘process’ (*kinesis*). A process is a whole goal-directed event that is composed out of temporal parts. Any process is such that it can be under way without having reached its end: a ship might be moving from A to B without having already *moved* there. If the ship’s movement is prevented, for instance by a bomb causing the ship to be destroyed, it will be true to say of it at a future time that it was

moving to B, even though it never finally moved there. The completion or aim (*telos*) of the process is in this sense external to the process itself.

Whereas we stop a process once its *telos* is reached, it is not the case that one ceases to *know* once one knows. Aristotle recognized that the difference between the imperfect and perfect aspectual verb forms does not apply to activities like thinking and knowing: “Thus at the same time one is seeing and has seen, is thinking and has thought, is knowing and has known, but it is not true that one at the same time is learning and has learnt, is being cured and has been cured” (Aristotle, *Met.* Θ6 1048b23). Unlike the processes (*kineseis*) of learning or curing, which come to a limit or end once their proper *telos* is reached, “thinking”, “knowing”, and “seeing” are not limited by, but directly *exhibit* or *manifest* the completion of their underlying capacity. They do not cease to be once their aim or *telos* is achieved, but are always already in a state of completion. The *telos* of an activity is in this sense ‘internal to’ the activity itself. Although it is essential to the activity that it is unlimited or self-sustaining, it may *accidentally* come to a limit or end, as for instance when I forget what I knew, or when I am convinced by a falsehood and withdraw my true convictions. These limits are incidental to the activity of knowing because they are not accounted for by the inner law or rule governing the capacity to know.

Kant suggests this conception of the activity of judging when he says that the unity of the original activity of the understanding (shared by all my representations) is the indivisible synthetic unity of apperception. It is not a unity that can be divided into temporal parts, because it is not composed out of temporal phases. Instead, it is a necessary unity that is contained *in* all of my representations, or ‘exhibited’ by them. All my representations – i.e., all representations combined by me – therefore instantiate or manifest what I know. The activity of the understanding has ‘necessary unity’ because it is determined by standards internal to the

understanding. And “the understanding by itself (without the influence of another cause) [...cannot] err; [...] because while it acts merely according to its own laws, its effect (the judgment) must necessarily agree with these laws” (A294/ B350). If I cease to judge in accordance with the laws of the understanding, or judge in such a way that my judgment loses its necessary unity, it cannot be due to anything internal to the judgment itself; it must instead be because of external influences, for instance because I have been persuaded by others.

Aristotle called the type of activity exhibited by thinking or knowing “*energeia*”.¹²⁰ *Energeia* in fact has two meanings that are familiar to English speakers as two descendants of the Latin word for doing (*ago, agere*): on the one hand, it can mean ‘act’, ‘action’, or ‘activity’, and on the other hand, ‘being actually’ or ‘actuality’. In the latter sense, *energeia* is the actualization or emergence into presence (*An-wesen*) of what was already in capacity or potentiality. These are clearly related concepts: we might say that something is in actuality when it carries out its characteristic activity or function: something is in the full actuality of being a man when it is actively being a man. Kant’s “actions of the understanding” [*Verstandeshandlungen*] share this ambiguity, since they are actions that *actualize* a capacity. Unlike the pure activities of an infinite intellect, which are always active and so are never in potentiality only, our understanding may have to await suitable conditions for its exercise. So although cognition (judgment) itself is an *activity* in the sense of *actuality* (*energeia*), it may presuppose a process of coming-to-be from a prior state of *potentiality*. This process of the coming-to-be of a judgment is of no concern to general logic. Cognition of any process must occur under temporal conditions and hence rests on

¹²⁰ Although Kant does not mention ‘*energeia*’, he sometimes uses its German equivalent, ‘*Tätigkeit*’ (or *Selbsttätigkeit*, e.g. at B68, B128, B130, B157n, and B278) or ‘*Handlung*’, which translates the Greek ‘*praxis*’, a concept under which Aristotle sometimes subsumes *energeia*. The following passage is an example of Aristotle’s use of the term *praxis* to characterize actions that include examples of *energeia*: “Since all actions which have a limit are means, not ends, they are not really actions, or not complete ones; that in which the end is present is an action [*praxis*]” (*Met.* 1048b18).

sensibility, from which general logic abstracts. Pure general logic is concerned with judgment (cognition) itself, not with its genesis under empirical conditions: “it has no empirical principles, thus it draws nothing from psychology” (A54/ B78).

4.0 INFERENCE

The logic of cognition is completed in the third section of the *Logic, Of Inferences*, which concerns the relations that *judgments* bear to one another in a whole of cognitions. An inference is “that function of thought whereby one judgment is derived from another” (JL §41).¹²¹ It is this stage of Kant’s incorporation of traditional logic that has suffered the most vehement attacks from contemporary philosophers, since there is no other place that as clearly reveals his seemingly narrow conception of logic. Although Kant countenances several types of inference, he privileges the *syllogism* or “inference of reason” [*Vernunftschluß*] as the *only* kind of inference that can offer genuine *rational cognition* or *proof* [*Beweis*].¹²² This would exclude from the domain of *rational cognition* not only contemporary forms of inference in quantificational logic, but also traditional inference forms depicted in the square of opposites, which Kant relegates to “inferences of the understanding”. As I argue here, the reason for Kant’s

¹²¹ An interesting question that arises in this context is why Kant assigns different logical forms of *inference* to the different cognitive faculties (understanding, reason, and the power of judgment), whereas there was no such division in the *Logic of Judgment*. The beginning of an answer is that the different kinds of judgment assigned to each of the different faculties (theoretical cognition, practical cognition, and aesthetic and teleological judgment) rest on extra-logical factors, whereas the different kinds of *inference* are purely *logical* differences that do not rest on a manifold of sensibility or on a faculty of desire.

¹²² I am indebted to Matthew Boyle’s article “Kant on Logic and the Laws of the Understanding” for helping me see this point. Kant follows the tradition in taking a ‘proof’ to mean roughly what Aristotle meant by scientific knowledge (*apodeixis*) (*Post. An.*). Sometimes *apodeixis* is translated as “demonstration”, but in Kant’s use of the term, only mathematical proofs are demonstrations; most proofs, for Kant, are “acroamatic (discursive) proofs” (A735/B763).

restrictive attitude towards what can count as a ‘proof’ can be understood on a *synthetic* approach to his conception of the capacity to know.

This vindication of syllogistic reasoning is predicated on an assumption that I have been working with throughout this dissertation, namely that the task of logic is to analyze the understanding as a capacity for cognition and to describe the inner rules that govern its self-determined operation. In the first section of this chapter, I will show how this assumption can also help us to understand Kant’s treatment of non-syllogistic inferences of the *understanding*. In particular, it can help to explain a peculiarity of these traditional inferences from a contemporary standpoint, namely, the assumption of the existential import of universal judgments, both in the inference from ‘All Ss are P’ to ‘Some Ss are P’, and in the inference from ‘No Ss are P’ to ‘Some Ss are not P’. The second section will then develop Kant’s conception of *rational* cognition in syllogistic reasoning. I have excluded a discussion of the inferences of the power of judgment, which would deserve treatment within a more complete study.

4.1 INFERENCES OF THE UNDERSTANDING

The inferences of the understanding, as we might expect, are divided according to the core functions of the understanding (the functions of judging). Inferences of the understanding in relation to the *quantity* and *quality* of judgments account for the inferences depicted in the core of traditional logic, the *square of opposites*. Inferences of understanding with respect to *relation* account for the traditional conversion rules, and those with respect to *modality* for the contraposition rules.

What all inferences of the understanding share in common is “immediacy”, or lack of a mediating judgment in deriving one judgment from another. Mediate inferences in the core case (categorical syllogisms) involve a middle term that is distinct in content from the concepts of the derived judgment, whereas immediate inferences derive one judgment from another that is different merely in “form”: “the *matter* of the judgments, the subject and predicate, remains *unaltered, the same*” (JL 9:115). We saw a similar, merely “formal” difference in the transition from non-conceptual representation to conceptual representation through the logical acts of concept-formation. And just as we noticed there that the *formal* difference between non-conceptual (obscure) and conceptual (clear) representation is not due to their being *opposed* to one another, but to the logical difference between representations that only *potentially* reflect an analytic unity, and those that *actually* do, here too the difference does not rest on opposition, but on a difference between a judgment that only potentially reflects another judgment already contained in it, and a judgment that brings that relation of containment (or identity) to consciousness (i.e., to actuality).¹²³

In inferences of the understanding, the derivation happens through *analysis* because one judgment analytically contains the other; and as with analytic judgments, the contrary of the inference would involve a contradiction. In immediate inferences with respect to quantity, for instance, the judgments would be contradictorily opposed if one affirms universally what the other denies particularly (e.g. all men are mortal, some are not). Most of the traditional immediate inferences have a correlate within contemporary logic. But those with respect to *quantity* have been received with puzzlement and rejected as ungrounded. Why does Kant, with

¹²³ Because the two states are not opposed, one need not think of the transition from one to the other as an alteration (see Engstrom, “Understanding and Sensibility”, p. 15).

the tradition, assume that the universal judgment ‘All Ss are P’ excludes the possibility that no S exists?

The dominant attitude towards traditional logic among contemporary philosophers has been that it simply assumes the “existence” of one or more objects falling under universal judgments as an additional premise. It is only together with this assumption, which is clearly extraneous to the field of logic and hence to the logical form of the universal judgment, that the universal judgment can be said to entail or ‘analytically contain’ the particular one. But there is no justificatory reason for restricting logic to that class of concepts that correspond to things that happen to exist in the world. Kant’s account may thus begin to look like a stubborn dogma, which he adopted perhaps for no other reason than that it accommodates the traditional inference patterns in the square of opposites.

A closer look at Kant’s treatment of existential import, however, reveals that Kant was not a blind follower of the traditional doctrine. Recall that the universality of the judgment ‘All Ss are P’ expresses its universal *use*: it *can* be used for the cognition of *any* S that it is P. But if *no* S exists, then it is not appropriate to say that the understanding has a *universal use*, but rather one must say that it has *no use* at all. For it is only with respect to singular objects that *exist* that the capacity for cognition can be used. The exercise of the capacity for cognition thus *presupposes* the existence of at least one of its objects. Either we must understand this presupposition as a condition that lies outside of the account of the capacity itself, and so as external to a logical account of the universal judgment, or we must understand existential import as a constitutive element in the logical account. In the following I will argue that certain features of our cognitive capacities provide compelling reasons to include, as Kant does, existential import *within* the logical account of the universal judgment ‘All Ss are P’.

Since the universal judgment ‘all Ss are P’ expresses the possibility of the use of the understanding in relation to any S, we may understand the universality of the judgment, like the generality of a concept, to be the universality of a *capacity*. That is, any instance or exercise of the capacity will be an instance of a general form, just as we might say (following Aristotle) that the actions of a particular whale are instances of the life-form or capacities shared by *whales in general*. Kant himself does not say very much about capacities, and where he does speak of them, he speaks of the *particular* capacities of particular objects that are given to us in concrete situations. The terms ‘capacity’ [*Vermögen*] and ‘power’ [*Kraft*] appear both in his discussion of substances from the first *Critique* and in his *Metaphysics* lectures. But unlike his Aristotelian predecessors, he does not understand the ‘capacity’ of a substance to be a ‘real possibility’ that belongs to it in virtue of the general kind of thing it is; he denies, that is, that we can know anything about the ‘real possibilities’ of a thing from the *general* concept or definition of a thing (A220/B267-8). What is really possible is instead known from what is actual or what *exists*. I know that a bird can fly, for instance, if I have seen it *actually flying*. We know that birds in general can fly only inductively, from seeing birds fly, and not from the concept or logical essence of the bird. The sphere of the “really possible” thus cannot extend beyond that of the actual (A231/ B283f.).

What is peculiar about the understanding is that we know it to be a capacity *prior* to its actualization; unlike the capacities and powers of objects, we have access to what is possible for it *a priori*, from the concept or nature of the intellect in general (the ‘I think’). It for this reason has affinities with the forms of Aristotelian substances, which Aristotle thought of as *general* forms that articulate the nature or essence of a thing (and to which we have access through a special faculty he called ‘*nous*’). Now, it should not be controversial that a subject may have a

general capacity to judge of any S that it is P, and yet never have an occasion to exercise it in cognition of a particular S, since no S exists. The sphere of the ‘possible’ in relation to the intellect extends *beyond* what is actual, precisely because our knowledge of what is possible (the capacity) is not derived (*a posteriori*) from knowledge of its acts. But our question is not whether the capacity can be impeded or inhibited. It is not in dispute that these *situations* cannot be excluded. What we wish to know is whether they can be excluded from a *general account* of the capacity itself (i.e. from the *form* of the universal judgment).¹²⁴ That is, can we say that the a priori account of the capacity *excludes* the possibility of its non-exercise (in this case, conditions in which no S exists)?

If we assume that capacities are *powers*, then this already suggests that they *must* be excluded. As Kant suggests in his metaphysics lectures, the notion of a power to perform some activity involves the thought that possession of the power must be *sufficient* to bring about its acts:

Capacity [*Vermögen*] and power [*Kraft*] must be distinguished. In capacity we represent to ourselves the possibility of an action, it does not contain the sufficient reason of the action, which is power [*die Kraft*], but only its possibility... (Met. Volckmann, 1784-85, 28: 434).

So if the universal judgment expresses a power to know of any S that it is P, rather than a mere capacity, then it would seem that the universal judgment must be *sufficient* for cognition of at least one existing S, i.e., that it sufficiently grounds its own actualization in cognition of some S. And this means that the power already excludes the possibility of its non-exercise, hence the possibility that no S exists. Another passage from Kant’s lectures on metaphysics suggests that

¹²⁴ It is relatively clear that an account of the capacity to judge of any S that it is P should not *include* occasions in which the capacity is *not* manifested, i.e. occasions in which no S exists. It is a constitutive feature of the universal judgment that it has a universal *use*, e.g. that it can be used for the cognition of any S, but it is not a constitutive feature of it that there are occasions in which it may not be used (or may be misused). But should these occasions be excluded in our account of the nature of the capacity?

he thinks of our thinking or judging in precisely this way. In the *Metaphysik Mrongovius*, our “faculty of thinking” is invoked to illustrate what a *power* [*Kraft*] is. “What then is the faculty of thinking? The relation of the soul to thought insofar as it contains the ground of its actuality” (29: 771).

However, we can doubt whether this notion of a ‘power’, which I have taken from Kant’s writings on metaphysics, has any application to the logical conception of our cognitive capacities. As Kant himself acknowledges, our capacity for theoretical cognition does not bring about the *existence* (actuality) of the objects it cognizes. So clearly our capacity is not sufficient for bringing about the actuality of its own acts in relation to particular objects. Something *further* is required: the object must be *given* to us from elsewhere (i.e. must affect us in sensibility) in order for the capacity to be exercised. Perhaps, then, it was wrong to think of the universal judgment as a power that is sufficient for bringing about its own acts. We should instead say that it is a *mere capacity* [*Vermögen*] to know something about any S, and that it is sufficient for bringing about cognition of some S only under the additional, empirical conditions in which *at least one S* exists. That is, in order to function as a *power*, the faculty of thinking needs to be *determined by external* (sensible) conditions.¹²⁵

The dependence of theoretical cognition on the existence of its objects does not warrant this strong claim, since it is also compatible with a much weaker claim. Suppose that we say that possession of the faculty of cognition is indeed sufficient to bring about its acts, but only *provided nothing external interferes*. That is, under conditions in which nothing inhibits its

¹²⁵ This seems to be Longuenesse’s view: “Following Baumgarten, Kant writes that a *conatus* is associated with every *Vermögen*. This *conatus* is a tendency or effort to actualize itself. For this tendency to be translated into action, it must be determined to do so by external conditions. Then the *Vermögen* becomes a *Kraft*, in Latin *vis*, force” (1998, p. 7). Although Longuenesse does not discuss this in much detail, these sentences suggest that she thinks of a power (*Kraft*) as brought about through the positive effect of sensibility on our faculty of understanding.

exercise, it functions as a power. In the case at hand, we might then say that the capacity to know of any S that it is P is sufficient for knowing that some (at least one) S is P, as long as we don't learn anything from experience that would inhibit this exercise of the capacity (e.g. as long as we don't learn of the non-existence of any S). To function as a power, the faculty of thinking does not need to be *determined* by external (sensible) conditions, but merely needs to be *unimpeded* by them.

This suggestion, like the first, rests on a questionable assumption. The assumption is that capacities which can be exercised only under certain conditions must *for that reason* be understood as *mere capacities*, and not as *powers*.¹²⁶ We can grant that our capacity for theoretical cognition is not an *absolute power*, in the sense that it is sufficient for bringing about its acts in all circumstances, or regardless of the circumstances. If it were absolute in this sense, the power would not only be sufficient for its acts, but would always already be *in activity* – the distinction between power and act would collapse. For there can be nothing *internal* to a power that could inhibit its own exercise.¹²⁷ Relative powers, by contrast, are such that they are exercised only in suitable circumstances, and since those circumstances are not always given, they are not always in activity. But this does not mean that they are not *themselves powers*, or that they are not sufficient for bringing about their acts. Nor must we think of them as powers *only* under the added condition that “nothing external interferes”. Aristotle recognized that even this addition is unnecessary:

To add the qualification ‘if nothing external prevents it’ is not further necessary; for it has the potentiality in so far as this is a potentiality of acting, and it is this not in all circumstances but on certain conditions, among which will be the

¹²⁶ According to the first view, the positive influence of sensibility is required to transform the capacity for cognition into a power. According to the second view, the negative absence of sensible inhibiting factors is required for the transformation.

¹²⁷ “No natural power can of itself depart from its own laws” (A294/ B350, JL 9:53-54).

exclusion of external hindrances; for these are barred by some of the positive qualifications [i.e. some of the things already in the definition] (Met. 1047a17-19).

Aristotle is concerned here with relative, not absolute capacities: “it is [a potentiality of acting] not in all circumstances but on certain conditions”. His point is that the suitable circumstances in which a relative capacity is exercised must be *included* within a *general account* of that capacity, and hence that the account *already excludes* the unsuitable circumstances.¹²⁸ We should not say that wood has the capacity to burn, provided nothing external interferes (e.g. provided it is not made wet by rain), but rather that wood *in general* has the capacity to burn under suitable conditions, e.g. conditions in which it is dry; these conditions belong to it, *as the kind of capacity that it is*. It does not suddenly acquire the capacity when it is dry, and lose it when it is wet, but rather it has the kind of capacity that is exercised in dry conditions, and not exercised in wet conditions.

Kant would not accept Aristotle’s claims to know something about the capacities of substances (like wood) from a general account of their nature. On Kant’s own critical view, we can only infer inductively from particular cases in which wood burns that wood in general has the capacity to burn; the possible should not extend beyond the actual. But in relation to our intellect, the general nature of which we can have insight into a priori, Kant can accept the upshot of Aristotle’s account: to say that the intellectual capacity in general is relative, rather than absolute, is not to say that it is a *mere capacity* or possibility (what was traditionally called a ‘first potentiality’), but rather that it is sufficient to bring about its acts *under suitable conditions*. These conditions belong to it essentially, as the capacity or *power* (second potentiality) that it is.

¹²⁸ As Moline explains, Aristotle does not add the *ceteris paribus* condition because the exclusion of unsuitable circumstances in which the capacity is exercised is already part of the definition of the capacity itself (Moline, pp. 249ff.).

The general account of the power thus already *excludes* the conditions under which it cannot be actualized. My cognition that ‘all men are mortal’, for instance, involves more than the mere *possibility* of an occasion in which I judge that a particular man is mortal. It is not as though it is an *accident* that I end up judging in this manner. Rather, if I truly judge or know that all men are mortal, then my knowledge is sufficient to ground my cognition of any particular man that he is mortal, under conditions in which I know he exists. The universal judgment does not just express a rule that I *ought* to think of any man as mortal, but a rule that has efficacy, or that governs a general power.¹²⁹ This means that, in conditions in which I know a man exists, I will in fact judge that he is mortal. The fact that particular, suitable conditions are required for the exercise of the power does not mean that the capacity expressed by the universal judgment is not a power.¹³⁰

An account of universal judgment - or a cognition that can be used universally – will thus exclude the conditions in which no S exists. Of course, the power expressed by the universal judgment is not sufficient to bring about a *singular* cognition, which asserts the existence of a particular object S, since cognition of existence presupposes that the object be given to our senses, and thus rests on conditions external to the power. But it belongs to the power as such that it cannot be exercised in conditions in which no S exists, and so the general account of the power *excludes* the non-existence of S. We can know this through analysis of the capacity of

¹²⁹ “Wir kommen also a priori zur Erkenntnis der Regeln, indem sich der Verstand, unangesehen aller Gegenstände, auf sich selbst richtet und seine Wirkung bemerkt. Also muß sich der Verstand hier selbst thätig beweisen und zwar *aus eigener Kraft*. Dasjenige aber, was der Verstand erkennt, indem er sich *aus eigener Kraft* thätig beweist, erkennt er a priori unabhängig von aller Erfahrung” (my emphasis; Logik Bauch 1789, p. 5).

¹³⁰ One might ask whether this reading of the universal judgment requires that logic concern itself with *Urteilkraft* (the power of judgment), rather than a mere *Vermögen zu urteilen* (the capacity to judge). Was it wrong of Kant to restrict the study of logic to the “understanding”, which he simply calls a *Vermögen zu urteilen*? The reading I have given of *Vermögen*, however, allows us to view the capacity also as a power. The distinction between understanding and power of judgment is not a distinction between a mere capacity (first potentiality) and a power (second potentiality), but rather a distinction in levels of reflection of a single power. We can either consider the power as a pure faculty of *spontaneity*, or we can consider it *qua* power of judgment, which also involves receptivity.

understanding alone, independently of the empirical situations in which the understanding is actually used, and so independently of awareness of actual *existence*. It follows from this understanding of universal judgment that if we know that ‘all Ss are P’, then we know of any division of the sphere of the concept S that it is P. For the universal power is not understood as one that is external to, or consequent upon, each of its particular acts. Instead, the acts are derived from the power. Thus, we know analytically from the form of the universal judgment that the power itself is contained in any sphere of its possible exercises, and hence that ‘Some Ss are P’.

Cases in which our cognition has universal form, but no application to one or more singular objects, thus should be understood as *formally* false, or as resting on some failure in the judging subject, rather than formally true (correct as an act of inference) and only materially false (because of the absence of an existing object). It belongs to what Kant refers to as “*error in the formal sense of the word*, i.e. [a case in which] the form of thought [is] contrary to the understanding” (JL 9:53). For instance, a subject might judge that *all* scholars are men, and yet, through inattention or stupidity, fail to be fully conscious of what he judges, and so judge that no scholars exist. He is then in a sense *self*-deceived, since his thought is contrary to what he understands. It is hard to comprehend how such error is possible: “we cannot in general comprehend how any power should deviate from its own essential laws” (ibid.). But we know that it is not through the “understanding itself” that the error arises. For if a subject has a universal cognition, then his *understanding* already excludes the possibility that there is nothing to which his cognition may be applied.¹³¹

¹³¹ Only error of this sort is the concern of general logic: “Logic does not have to concern itself at all with falsehood *quoad materiam*. [...] What pertains to logic is only the argumentation and the *error aut veritas ratiocinii quoad formam*” (D-W 24:772).

4.2 INFERENCES OF REASON

“In every inference”, Kant says, “there is a proposition [*Satz*] that serves as a ground, and another, namely the conclusion [*Folgerung*], that is drawn from the former, and finally the inference [*Schlußfolge*] (consequence [*Konsequenz*]) according to which the truth of the conclusion is connected unfailingly with the truth of the first proposition” (A303/ B360). Besides the ground and conclusion, the inference also contains the “consequence”. As Kant says here, this is a relation between the ground and conclusion in accordance with which the truth of the latter is determined (or, as Kant will sometimes say, in accordance with which the conclusion is “necessary”). This relation may either be immediate or it is mediated by another judgment. Inferences of understanding are immediate because the conclusion brings to consciousness an act that was already *contained in* the ground (KrV B360; JL 9:115). The relation made explicit in the conclusion, and in accordance with which the truth of the conclusion is determined, is thus a relation of *identity*. Since it is in accordance with the principle of identity that the truth of the conclusion is necessary, its necessity, like that of analytic judgment, rests on the *impossibility* of thinking the opposite. The necessity of the consequence thus has a *negative* character; I *must* infer in this way, and not in the opposed manner, because otherwise my cognition would contain a contradiction and hence entirely “annihilate itself” (A152/ B191).

Inferences of reason or syllogisms, by contrast, are *mediate* inferences from grounds that do not analytically contain the conclusion. For instance, the ground or major premise ‘all men are mortal’ does not already analytically contain the conclusion ‘Socrates is mortal’. I infer that

he is mortal only through the *mediating* judgment ‘Socrates is a man’. The progression from ground to consequence in a syllogism thus is not a progression in mere logical *clarity* or analysis, but in cognition or synthesis. The grounds of syllogisms are (at least, in the core case) *synthetic*, not analytic grounds. An immediate inference such as ‘All men are mortal, so some are’ only allows me to appreciate *that* some men must be judged to be mortal, but without insight into the reason *why*. A syllogism gives a more *positive* account of the necessity or necessary validity of the conclusion, by explaining *why* it is necessary, or why it must be true.¹³² Syllogisms thus deliver a proof or explanation of their conclusions: “Every inference of reason is supposed to be a proof [*Beweis*]” (JL 9:129n.2.; cf. Refl. 3265).¹³³

This may strike the reader as a surprising place to begin understanding the logic of syllogisms. Shouldn’t general logic abstract entirely from the difference between analytic and synthetic grounds in its treatment of correct forms of inference? It can be tempting to read Kant’s logic in such way that its treatment of the syllogism floats free of these differences. Indeed, this would almost seem to be a natural consequence of the ‘formality’ of Kant’s logic. Because this issue is of some relevance to understanding Kant’s conception of logical form more generally, it is expedient that we first step back and consider Kant’s account of the *logical or formal source* of the validity of an inference of reason, i.e. what Kant calls the “universal principle” of all inferences of reason, “on which the validity [*Gültigkeit*] of all inference through reason rests” (JL 9:120). Kant formulates the principle as follows: “what stands under the condition of a rule

¹³² “Durch den Verstand erkennen wir blos, daß etwas sei; aber durch die Vernunft sehen wir auch zugleich ein: daß etwas so seyn muß – also durch die Vernunft, die Dinge mit ihrer Notwendigkeit” (Logik Bauch 1789, p.5)

¹³³ Another telling passage is the following one, in which Kant implies that only mediate judgments (i.e. those that are mediated through another judgment in syllogisms) are proofs: “All certainty is either *unmediated* or *mediated*, i.e., it either requires a proof, or it is not capable of and does not require any proof. Even if so much in our cognition is certain only mediately, i.e., through a proof, there must still be something *indemonstrable* or *immediately certain*, and the whole of our cognition must proceed from *immediately certain* propositions” (JL 9:71). Kant is following Aristotle in his treatment of principles as simple or immediate (*ameson*).

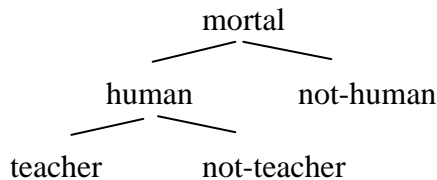
also stands under the rule itself” (ibid.). This gives rise to several questions. What is it to ‘stand under a condition’ or under a ‘rule’? And how does this universal principle account for the *validity* of syllogisms? What is its relation to the rules governing concept subordination, and to the principles of categorical, hypothetical, and disjunctive syllogisms? In the following, I will first consider answers to these questions from an ‘analytic approach’ to Kant’s logic, according to which the relation of ‘standing under’ conditions and rules is understood as one of subordination of representations under higher ones through comparison or analysis. I will argue that this interpretation is inconsistent with the general aims of Kant’s logic, since it does not admit of the possibility of genuinely synthetic grounds. I then show how our understanding of Kant’s logic can be improved by beginning with a conception of reason as a synthetic capacity, i.e. a capacity to bring about a synthesis through concepts.

4.2.1 The Analytic Approach

According to the **narrow analytic approach**, the validity of all syllogistic reasoning derives from containment relations among *concepts*. This is easiest to see for categorical syllogisms, and since Kant thinks that all categorical syllogisms can be reduced to the first figure, we can focus on it here.¹³⁴ The middle term functions both as a concept that is subordinated *under* a higher concept, and as a concept that subordinates lower representations under itself. For instance, in the syllogism ‘All men are mortal, All teachers are men, So all teachers are mortal’, the term

¹³⁴ This reduction in fact should be understood as *starting* with a perfect or pure categorical syllogism (the first figure), and then mixing in immediate inferences from one or more of its premises to obtain the other three figures (the latter are thus called “impure inferences (*ratiocinia hybrida, impura*)” JL 9:128). For instance, if we start with the syllogism ‘All men are mortal; Socrates is a man, so Socrates is mortal’, we can obtain the second figure by conversion of the first premise to ‘No men are immortal’, which then allows us to establish a negative conclusion: ‘Socrates is not immortal’.

<man> is subordinated under a concept of greater generality, <mortal>, but it also subordinates the lower concept <teacher> under itself. In Kant’s formulation, the concept <man> functions as a *condition* for the application of the *rule* <mortal> to teachers. The syllogism can thus be represented through relations among concepts in a conceptual hierarchy:



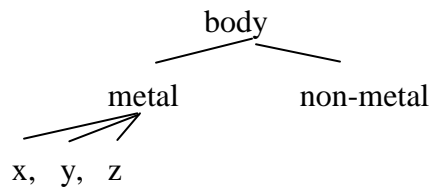
The conclusion is necessary or valid because <teacher> stands under the concept <man>, and so, on pain of contradiction, *must* also fall under the higher concept <mortal>. The necessity or validity of the conclusion thus rests on analytic containment relations among its concepts in both (analytic) premises of the syllogism. So the above principle of all inferences of reason can be understood as equivalent with the following “universal rule in respect of the subordination of concepts”:

1. What belongs to or contradicts higher concepts also belongs to or contradicts all lower concepts that are contained under those higher ones; [...] (JL 9:98).

Since, as we have seen, conceptual containment relations are analytic, the narrow analytic approach must admit that the conclusion of the categorical syllogism is analytic. But then the *condition* for the assertion of the conclusion through a middle term is not needed; one ought to be able to recognize the conclusion to be “necessary” in an *immediate* way, through mere analysis of the concepts contained in it, i.e. without mediation through a middle term. Moreover, the narrow analytic approach cannot be applied to hypothetical or disjunctive syllogisms, in which judgments, not concepts, figure as conditions for the assertion of the conclusion.

In the literature on Kant’s syllogistic, the narrow analytic approach has few supporters. Most writers assume what I will call a **broad analytic approach** to the syllogism, although it

bears emphasis that this is not a view that I have found explicitly stated and worked out in the secondary literature (indeed, once we have stated the view, perhaps it will have no supporters).¹³⁵ The broad analytic approach may avoid the first of the above objections against the narrow approach by insisting that the “condition” in a categorical syllogism is a term that subsumes not concepts, but *objects* under itself; the minor premise is thus a synthetic judgment. In this way, the conclusion of the syllogism may be understood to be synthetic, even when its principle or major premise is analytic. This is manifest in an example that Longuenesse chooses to illustrate syllogistic reasoning: “The concept of body applies to the concept of metal, the concept of metal applies to objects x, y, and z; therefore, the concept of body applies to these same objects” (Longuenesse, p. 91). These relations among representations may be diagrammed as follows:



The major premise of the syllogism subordinates <metal> to <body>, and the minor premise subsumes the objects x, y, z under the concept <metal>. What the conclusion does is make explicit what was already contained implicitly in these premises, namely the subsumption of x, y, z under <body>.¹³⁶

¹³⁵ In particular, since there is no extended discussion of syllogisms in Longuenesse, the broad analytic approach to syllogisms cannot be ascribed to her. I will cite several things she says along the way, since they are strongly suggestive of an analytic approach. However, other things she says speak against what I develop here as the analytic approach, such as the following statement: “Today we call ‘form’ the structural features of the proposition that are relevant to truth-preserving inference and are expressed in the language of a logical calculus. In many ways Kant’s ‘formal’ logic is even further from such a model than Aristotle’s *Prior Analytics*, and a fortiori, further than Leibniz’s *calculus ratiocinator* or its developments in Wolff or Lambert” (Longuenesse 1998, p. 74).

¹³⁶ According to Longuenesse, “a *rule* in Kant’s sense of the term [...] is the major premise of a possible syllogism whose minor term is always the object, the appearance” (1998, p. 92).

Longuenesse's illustration has the advantage of coming closer to Kant's formulation of the principle of categorical syllogisms, which differs from the above rule of concept subordination in that it mentions objects or *things*:

The principle on which the possibility and validity of all categorical inferences of reason rests is this: *What belongs to the mark of a thing [Sache] belongs also to the thing itself; and what contradicts the mark of a thing contradicts also the thing itself (nota notae est nota rei ipsius; repugnans notae, repugnat rei ipsi)* (JL 9:123).

But if we consider the matter more closely, the broad analytic approach must adopt a more specific version of this principle for the above example of a syllogism, in which the major premise is an analytic judgment. For in that example the "marks" of the thing are *general* marks or concepts, which stand in analytic containment relations with more general concepts. Hence the analytic approach may accept Kant's understanding of the traditional *dictum de omni et nullo* as the principle of categorical syllogisms with analytic major premises:

Genus and species concepts are universal marks of all things that stand under these concepts. Accordingly, the rule holds here: What belongs to or contradicts the genus or species belongs to or contradicts all the objects [Objekten] that are contained under that genus or species. And this rule is called just the dictum de omni et nullo (JL 9:123).

Kant says that this rule "may be easily deduced" from the above principle of categorical syllogisms. But for that very reason it cannot hold either "as the first principle [...] for inferences of reason in general [or] for the categorical in particular" (ibid.). The problem with taking the *dictum de omni et nullo* to be a principle of categorical syllogisms is that it makes the middle term *redundant*. If I can know through mere conceptual analysis that metals are bodies, since <metal> is a species of the genus <body>, I can infer

immediately, through analysis of the concept <metal>, from ‘these things are metals’ to ‘these things are bodies’; no synthetic ground (higher principle) is required.¹³⁷

The broad analytic approach can concede that the *dictum de omni et nullo* is valid as a rule *only* for categorical inferences that have *analytic* major premises. It may even grant that such inferences are not syllogisms in the proper sense, since they can be reduced to immediate inferences of the understanding. What is more important for our purposes is how the analytic approach understands syllogisms that have *synthetic* major premises, since only these are proper syllogisms (*mediate* inferences). Synthetic judgments, according to this approach, are to be understood as acts of comparison or analysis not of concepts, but of the *things* falling under the subject concept, for their subsumption under a predicate concept. So the (synthetic) ground of Socrates’s being mortal is that all *things* that are men, or rather all *intuitions* of men, also are subsumed under the concept of mortality.

More generally, the *condition* for the application of any rule (major term or major premise) is the possibility of subsuming *objects* under it, a possibility expressed by the middle term.¹³⁸ This focus on the intentional character of concepts as relating to things or objects, according to many interpreters, is a reason to view Kant’s logic in his *critical* period as moving towards an extensionalist conception of syllogistic ‘containment under’, and away from a fully analytic or intensionalist account modeled on the relations of containment among concepts in genus-species hierarchies.¹³⁹ And it enables us to see how Kant can now claim to have found a unitary, universal principle of *all* syllogisms, one that applies equally to categorical,

¹³⁷ Kant expresses this by saying that the major premise does not express the unity of what is *different*: “Die analytischen Schlüsse sind zwar aus Begriffen; aber der *Major* ist ein allgemein identisches Urteil, welches nicht Einheit des Verschiedenen, sondern des einhelligen und identischen ausdrückt” (R 5553, 18: 226).

¹³⁸ According to Longuenesse, “in most cases concepts function as conditions only insofar as they subsume (a priori or empirical) sensible intuitions, which are thus ultimately the true conditions of judgments” (1998, p. 97).

¹³⁹ See especially Charles Nussbaum 1992, p. 290f., Longuenesse 1998 pp. 86ff., Schulthess, pp. 14ff., Hanna 2004, section 1.2.

hypothetical, and disjunctive syllogisms. In all cases, the *extensions* that “stand under the condition of a rule also stand under the rule itself” (JL 9:120). Kant may be read as standing in agreement with Leibniz’s claim in the *Nouveaux Essais* that “the whole theory of the syllogism could be demonstrated from the theory *de continente et contento*, of containing [*comprenant*] and contained [*compris*]”, but now with the proviso that not only concepts, but also things (and truth-values), may be ‘contained under’ concepts (IV.17.8). What is crucial is the distinction between *concepts* and *objects*, the importance of which to logic is taken to be a Kantian innovation, brought about by his distinction between analytic and synthetic judgments.

The different kinds of syllogism may be articulated by reference to different kinds of extensional ‘containment’ relations. For instance, the principle for categorical syllogisms is that any objects subsumed under a *subject concept* must also be subsumed under those higher concepts under which the subject concept is subordinated. And for the hypothetical syllogism: if the antecedent of a *hypothetical judgment* is true then its consequent must also be true. In disjunctive judgments, if one disjunct is true then the other disjunct must be false (or vice versa).

But notice that the extensional containment relations articulated by these rules cannot secure the *validity* of a syllogism with a synthetic principle; for it may be an *accident* that an object subsumed under the middle term (Socrates under <wise>) also is subsumed under the major term (<philosopher>), once we grant that the judgment involving middle and major terms is synthetic. The analytic approach may respond that the ‘necessity’ or ‘validity’ of the conclusion follows here from the fact that, for *any* concepts employed in the premises, when the major and minor premises are true (e.g. when the middle term in fact falls under the major term and the object falls under the middle term), the conclusion *must* also be true (the object itself will fall under the major term). That is, the conclusion is true for *any interpretation* of the terms of its

premises, regardless of the *contents* of the concepts. This would bring Kant's conception of the necessity of the conclusion into close proximity with the contemporary understanding of validity in terms of 'semantic consequence'. And it would enable us to think of the logical form of syllogisms as indifferent to the issue of whether the major premises are analytic or synthetic.

This reading faces several problems. (We can set aside the problem of obtaining a *modal* account of 'validity' from the merely *universal* claim that the forms are truth-preserving on all interpretations.) Recall that the "universal principle" of inferences of reason was supposed to account for the validity of any syllogism. But on the analytic interpretation the principle is a *rule*; something *further* is required to show that arguments in accordance with the rule are *valid*, or that they preserve truth on any interpretation of their symbols. This should make us wonder why Kant did not offer a soundness proof for his syllogistic principles of inference, but instead asserts from the outset that the principles are the source of validity of inferences. Moreover, semantic consequence cannot help us understand the *different ways* in which an inference [*Schluß*] has validity, as articulated by the three kinds of syllogism in Kant's logic: for in all three cases it is assumed that validity rests on truth-preservation in the relation between *premises* and *conclusion*. The differences among the kinds of conditions mentioned above concern *not* the relation between premises and conclusion, but instead differences among kinds of premises. They are thus of no help in making sense of the various *principles* or kinds of validity. Finally, the synthetic principle of a syllogism would not, on this reading, articulate a relation among *concepts* as such, but rather would reflect what is contained in *intuitions* falling under them. This does not mesh well with Kant's understanding of a universal principle, which in the core sense is a "synthetic cognition from concepts" (A301/ B358; I will return to Kant's understanding of principles in the next section).

Aside from these interpretive problems, it is instructive to consider how the analytic approach might respond to philosophical objections that have been raised against syllogistic reasoning. These objections have an ancient pedigree in the empiricist tradition, reaching all the way back to the Hellenistic skeptics. Sextus Empiricus accused formally valid syllogisms of redundancy. The categorical syllogism ‘Socrates is a man; every man is an animal; therefore Socrates is an animal’ is redundant because it must already be pre-evident that ‘Socrates is a man’ implies ‘Socrates is an animal’ for the conclusion to follow. That is, the immediate inference ‘Socrates is a man, therefore Socrates is an animal’ will do; the synthetic principle is not required (II 158-167). Locke had similar reservations about syllogistic reasoning: “A Man knows first, and then he is able to prove syllogistically. So that *Syllogism* comes after Knowledge, and then a Man has little or no need of it” (*Essays* IV xvii §6). What a man “knows first” are the connections, e.g. between the middle term (condition) “and the two other ideas it is set between”; this is seen prior to the syllogism and determines whether the inference is good or no: “Syllogism comes too late to settle it” (IV xvii §4, p. 675). Locke even suggests that one can see these connections far better, “quicker and clearer”, *without* a syllogism (p. 678).¹⁴⁰ Finally, Mill argues “that in every syllogism, considered as an argument to prove the conclusion, there is a *petitio principii*” (II. iii. §2). Like his predecessors, Mill is skeptical about the source of our knowledge of the principles on which syllogistic reasoning rests. Consider, for instance, the hackneyed example of the syllogism ‘All men are mortal; Socrates is a man, therefore Socrates is

¹⁴⁰ Brandom has similar arguments in favor of material (immediate) inferences, which places him squarely within the empiricist-skeptical tradition. He adopts “a pragmatist line of thought, beginning with material inferences – that is, nonlogical, content-based reasoning. It would then be necessary to explain how logical vocabulary such as the conditional is to be understood as permitting the expression of those implicit inferential commitments in an explicit fashion – that is, as judgeable, claimable, believable contents, as the contents of potential propositional commitments” (Brandom, p. 101). Synthetic principles, such as the conditional in a *modus ponens*, are only needed for making explicit inferential relations that were present without them; they are not, that is, needed for the *proof* of the conclusion.

mortal'. The conclusion follows only if there is a connection between being a man and being mortal; but *that* all men are mortal is known empirically from observation of the mortality of individual men. Hence one would need to know of such beings as Socrates that they are mortal, prior to the syllogism that supposedly *proves* him to be mortal. Contrary to the presumption of syllogistic knowledge, the conclusion does not rest on the principle; on the contrary, knowledge of the conclusion supports knowledge of the principle.

The broad analytic approach can agree with the empiricists that the connections among representations are known from experience; the role of reason in the syllogism is not to supply these connections or to furnish a *proof*, but to subordinate cognitions under general representations of them and to preserve truth in deriving the particular from the universal.¹⁴¹ This suggests the following attitude towards the traditional skeptics: Sextus was right that the use of 'synthetic grounds' is logically inert for the purposes of *proof*, but it may serve us well in making our cognitions more distinct – for it allows us to recognize the middle term as one of the marks of the representations falling under it. Locke may also have been right that we know connections among ideas with greater *aesthetic* clarity in experience, i.e. with greater intensity and liveliness; but the syllogism, one might argue, imparts greater *logical* clarity on cognitions, by analyzing them into their elements and ordering them into a hierarchy of concepts or judgments (cf. JL 9:62). There is no 'petitio principii', as Mill contends, if we refrain from viewing the task of the syllogism as one of *explaining why* Socrates is mortal.

This attitude towards skeptics of the syllogism, which it would be natural for advocates of the analytic approach to adopt, is closely related to *epistemological*, rather than *logical*

¹⁴¹ Most proponents of the analytic approach would of course agree that reason plays a role in synthesizing a sensible manifold in experience. But the point I am making is that the analytic approach does not allow reason to play a synthetic role in the *syllogism*.

readings of their objections. On the epistemological reading, the skeptics pose a challenge not to the *logic* of syllogisms, nor to the general advantages that logic can bring to our thinking, but merely to the idea that its premises can be known prior to experience. If the premises of syllogisms are merely empirical or inductive regularities, then syllogisms surely are not needed to establish the truth of particular judgments falling under them: experience will do just as well, or better. But this redundancy concerns only our knowledge of the major premise and does not pose a threat to the idea of formal or logical *validity*. The conclusion follows from the premises if the argument is truth-preserving, regardless of whether the premises are empirical or *a priori*. The validity of the conclusion thus concerns only its ‘formal validity’, and not the validity of cognition: a consequence may be logically or formally valid, because it follows from the premises of a syllogism, and yet fail to be a *cognition*, because it is false or corresponds to no existing object.

The skeptics’ points do not, on this reading, impugn Kant’s analytic understanding of the logical form of a syllogism. But the epistemological reading of the skeptical challenge does not quite agree with the traditional skeptics’ understanding of *themselves*. They took themselves to have dealt a devastating blow to syllogistic *logic*, not merely to the epistemology associated with it. Redundancy of premises, according to Sextus, is *bad logic* (see “Against the Logicians”). And *logic*, Mill believes, should cease to represent “the syllogism as a process of inference or proof” (Mill, II. iii. §2). This suggests that they understood the question about the source of the knowledge of principles to be a *logical* question. In the following, we shall see that Kant agrees – and hence that the issue concerns the very possibility of syllogistic *logic*.

4.2.2 The Synthetic Approach

4.2.2.1 A Re-Assessment of Syllogistic Skepticism

The syllogism contains three elements: a rule (the *major* premise), the subsumption of a cognition under the condition of the rule (the *minor* premise), and the “[determination of] my cognition through the predicate of the rule (the *conclusio*), hence *a priori* through reason” (A304/ B361). The task of reason in the syllogism is allocated to the third element, to the *determination* of the cognition through the predicate of the rule. The conclusion thus expresses that it is not indeterminate or an open question whether or not the predicate belongs to the subject; the predicate necessarily *belongs* to it, in such a way that its opposite is *excluded*.¹⁴² But if reason itself is the source of the ‘determination’ of the subject of the conclusion with respect to its predicate, all rational cognition will have to be cognition from reason, or *a priori* cognition. Thus Kant says that “rational cognition and cognition *a priori* are one and the same” (KpV 5:12).¹⁴³

¹⁴² “To determine is to posit a predicate while excluding its opposite” (NE 1:391; see also MM 29:819).

¹⁴³ The continuation of this passage is interesting for our purposes: “It is an outright contradiction to want to extract necessity from an empirical proposition (ex pumice aquam) and to give a judgment, along with necessity, true universality (without which there is no rational inference and so not even inference from analogy, which is at least a presumed universality and objective necessity and therefore presupposes it). To substitute subjective necessity, that is, custom, for objective necessity, which is to be found only in a priori judgments, is to deny to reason the ability to judge an object, that is, to cognize it and what belongs to it; it is to deny, for example, that when something often or always follows upon a certain prior state one could *infer* it from that (for this would mean objective necessity and the concept of an a priori connection) and to say only that we may expect similar cases (just as animals do), that is, to reject the concept of cause fundamentally as false and a mere delusion of thought” (KpV 5:12). Notice that Kant assumes here that the possibility of inference rests on the “concept of an a priori connection”.

What does it mean for reason to *determine* an act of cognition? To many interpreters it has seemed a short step from the claim that reason is a determining power to the view that reason is a faculty of *freedom*. What it means for reason to *determine* a cognition in a syllogism, according to this interpretation, is for reason itself to be the explanatory ground or *cause* of the cognition. This suggests that the conclusion is brought about by an act of ‘making up one’s mind’, based on a *choice* of *this* way of thinking over its alternative competitors.¹⁴⁴ When I subject my own judgments to the question ‘why?’ I not only determine what one ought to think, but also thereby *cause* (bring about) what I think or judge.

There are several considerations that speak against this reading. Kant says that the cognitive faculty (i.e., reason or the understanding in the broad sense) is a faculty of *spontaneity*. Spontaneity is officially introduced as a “faculty for bringing forth representations itself” (A51/B75) and the *exercise* of spontaneity is later said to consist in the “self-activity” of the understanding (B130, B132). Only much later does Kant introduce the concept of *freedom*, which he says is a kind of “causality” to bring about effects “in the world of sense” (A538/B566). If spontaneity itself were a causality of freedom, the acts of thinking that it brings about would have to be empirical-psychological thoughts in the “world of sense”.¹⁴⁵ That is, they would have to be thoughts that I access through their *effect* on me, or through receptivity.¹⁴⁶ This

¹⁴⁴ Aristotle is also sometimes read as insisting that rational capacities always rely on an element of choice (*prohairesis*) in their exercise, and hence involve freedom (see for instance Kenny, p.53). Aristotle clearly claims that any science “must deal with contraries”. For instance, the science of healing must deal both with health and with illness. But Aristotle seems to introduce “choice” (*prohairesis*) only in the context of explaining how the scientist may *bring about* health or illness, and not in the context of explaining how he might have *knowledge* pertaining to health and illness (Met. IX 1048a6-13). It is only because he has a “soul which possesses a principle of movement” that the scientist is said to have a two-way power (Met. IX 1046b11-18).

¹⁴⁵ We need not deny that freedom is a kind of spontaneity (see A445/ B473). The question here is whether spontaneity is a kind of freedom.

¹⁴⁶ Kant does sometimes speak as though judgments are the “effects” of the understanding (e.g. at A294/B350). But I think the causal terminology is employed here in an extended sense (i.e., Kant sometimes employs the categories such as ‘cause’ in a ‘reflective’, not ‘determinative’ manner).

is because, in Kant's view, freedom is the causality of the will that brings about the "existence" of an object, but the existence of any object (or of any state of mind) can only be known through sensation, i.e., from the effect of the object (or state of mind) on the mind (e.g., in inner sense). Hence, the effects [*Wirkungen*] of freedom are not known through freedom itself; knowledge of them always rests on the receptivity of our power of cognition. This would have as a consequence that we cannot know the conclusions of our arguments except (absurdly) by *observing* them in ourselves.

Kant's reasons for his claim that the effects of free action can only be known through receptivity are complex and intriguing, and cannot be dealt with in any detail here. But there is also a more elementary consideration that speaks against the above reading of spontaneity as a kind of freedom or self-causation. This is that we speak of a *cause* as something *other* than its effect, at least in the sense that the cause relates to the effect as an agent to a patient. So if it makes sense to say that I cause myself, e.g. by causing myself to think in a certain way, then this must mean that I relate to myself as a patient, not as agent. To borrow from an example in Aristotle, the situation is analogous to the one faced by a doctor who wishes to cure himself. It is not possible for the doctor to cure himself *qua himself*; to act as a *cause* of his own health, he must relate to himself *qua* other, or as a *patient*. Kant does not deny that we sometimes relate to ourselves in this manner, even with regard to bringing about a change in our ways of thinking. For instance, he famously regards it as a "maxim" or "duty" (of the enlightenment) that one ought to "think for oneself". That we think for ourselves, rather than relying on the judgments of others, is something we can *cause* ourselves to do through the adoption of the maxim, i.e., through the use of our freedom in bringing about a change in ourselves (KU 5:294; A 8:35).

If we return now to the role of reason in the syllogism, it is clear that reason does not bring about the conclusion in itself *qua other*. Reason, as a spontaneous power, brings about a cognition in itself *qua itself*. That is, reason is a capacity that brings about its acts through its own self-activity [*Selbsttätigkeit*], and in a manner prior to self-affection. Unlike the effect of a cause, the conclusion of the syllogism contains the ground *within* it; becoming conscious of the grounds of the judgment is thus an act whereby the judgment becomes *self*-conscious, not an act of becoming conscious of a cause lying outside of the effect.¹⁴⁷ There is no element of receptivity or passivity in the transition here from capacity (ground) to act (conclusion) – the capacity brings *itself* (*qua itself*) to actuality through its own spontaneous activity. This is precisely why general logic can be concerned with the syllogism at all; for the logician abstracts from all involvement of receptivity or sensibility in cognition. The logician’s cognition of our acts is ‘formal cognition’, not material cognition, because it is based on nothing other than self-consciousness in the activity of judging or inferring. The syllogism must therefore be understood to be an activity of spontaneity that is determined by nothing outside of reason itself. This will allow us to view the syllogism as a single unified act of cognition whose unity is already guaranteed by the fact that it is an exercise of a spontaneous rational capacity, rather than a list of cognitions that are external to one another (premises and conclusion) and whose unification remains a puzzle.

¹⁴⁷ It is important here to distinguish between the formal act of “determining” a cognition through a ground and the material employment of this act in determining a substance in nature through a “real ground”. Due to this distinction, it is not helpful to elucidate Kant’s conception of reason as an *a priori* ground in the syllogism through his pre-critical notion of an “antecedently determining ground” or *ratio essendi* (Elucidation, 1:392). The latter notion, like its complement “consequentially determining ground” (*ratio cognoscendi*), are inseparable from the notion of a *real* ground or cause. This is why it is to be found in the critical period only in Kant’s lectures on metaphysics, but not in his logic lectures (MM 29:809). It is also found in Kant’s discussion of freedom, since freedom itself is a causality: freedom, he tells us, is the *ratio essendi* of the moral law, while the moral law is *ratio cognoscendi* of freedom (KpV 5:5n.).

In order for the entire syllogism to be a single act of spontaneity, the principle (major premise) in a syllogism must express the power of reason (synthetic unity of apperception) itself. That is, it must be a principle constitutive of reason that is prior to the judgment (conclusion) it determines, and that itself is not determined by any higher principle. The principle must for this reason be an instance of synthetic *a priori* (not *a posteriori*) cognition, or of “synthetic cognition from concepts” (A301/ B357). We do not ask further, ‘why is the principle valid?’ because the principle constitutes the unity of that self-conscious act of cognition through which we answer ‘why’ questions at all. So to know that I am *answering* a ‘why’ question or exercising my cognitive capacity to reason, I do not have to launch into remorseless chains of syllogistic deductions; I know this already through self-consciousness of the unity of my act of reasoning within the syllogism.

The synthetic apriority of the principle in a syllogism is neither a merely “epistemological” requirement concerning the justification of the principle, nor an “empirical-psychological” point about its genesis in the mind. Rather, what is at stake here is the unity of the syllogism itself; if the principle did not have its source in reason alone as a *synthetic a priori* principle, it could not be the source of the *determination* of the conclusion in the sense of “determination” that is proper to cognition. Thus, the issue concerns the *logical form* of the syllogism as a single unified act of the spontaneity of reason.¹⁴⁸

We may now begin to see why understanding the possibility of *syllogistic reasoning* may have been a cause for despair among empiricist philosophers. Their skepticism was not directed

¹⁴⁸ There are several loose ends here that I will not be able to tie in this dissertation. As I suggest here, the “immediacy” of principles used in syllogisms averts the threat of tortoise-style regresses in explaining *why* I judge in the manner that I do. But we should not confuse these claims about the logical form of a syllogism with claims that Kant makes pertaining to the relation that principles bear to possible objects of cognition. His distinction between “principles in the absolute sense” and “principles in a comparative sense”, for instance, belongs to the latter inquiry: principles in the absolute sense are synthetic cognitions of objects from *mere* concepts.

merely against the possibility of knowledge that is justified independently of experience, but against the very possibility of reason as a cognitive *power*, i.e. as a capacity to *bring forth cognitions a priori, from itself*. This is expressed by their doubts about the possibility of synthetic a priori *principles* of cognition. As Kant says, Hume “believed himself to have discovered in what is generally held to be reason a deception of our faculty of cognition” (B128). If we wish to know where the determinacy of judgments comes from, or how it is that the predicate determines a subject-concept, the empiricists claim that we must look only to the way in which we are *persuaded* or *constrained* to think in certain ways by experience, e.g. in the habitual training of our power to judge. Reason itself is powerless to bring about a determination. But can the empiricists *prove* that reason is a chimera? The appeal to experience does not furnish a proof. In fact, it seems that nothing can. For any such proof would have to involve the use of reason itself:

Nothing worse could happen to these labors than that someone should make the unexpected discovery that there is and can be no a priori cognition at all. But there is no danger of this. It would be tantamount to someone’s wanting to prove by reason that there is no reason (KpV 5:12).

4.2.2.2 The Universal Principle of Inferences of Reason

Kant’s insight, which he shared in common with his rationalist, but not empiricist predecessors, was that the kind of *necessity* proper to acts of cognition cannot be understood by looking at the ways in which we are affected by objects, or by the influence of experience on our thinking. When we have understood something, it can only be because we have *insight* into the phenomenon through our *own* thinking, and not because we were constrained to think in this way; our cognition must, therefore, have *a priori* determining grounds, i.e. it must be determined through reason.

But we might ask why the operations of reason in determining judgments are not false impositions on these judgments. With what right does reason subject judgments to its acts of determination? This question is easily answered if it can be shown that the principles of inferences of reason are all derived from the functions of judging themselves. As we have seen (in the chapter on judgment), the validity or necessity of a *judgment* can be recognized through the form of judging. But the necessity of a *mere* judgment, which is not also a rational cognition (i.e., conclusion of a syllogism), is its rulish character: I am conscious, through the logical form of the judgment, that I *ought* to judge in this manner. Only rational cognition enables me to appreciate that my synthetic judgment is indeed as it ought to be, since only rational cognition *determines* my judgment in the manner proper to genuine cognition (i.e. through spontaneity). In rational cognition, a judgment is determined to be in accordance with a rule from *no other source* than my consciousness of the rule itself.

To say that the form of a mere judgment expresses its claim to be in agreement with a rule is to say that it is essentially related to functions of the understanding. This is borne out by the modality of the judgment as an act of assertion: that it is “assertoric [...] indicates that the proposition is already bound to the understanding according to its laws” (A76/ B101). The validity of a mere judgment consists in its *agreement* with these laws or rules, and in a claim to be *grounded* in them. But the syllogism shows that it actually *is* grounded in them, and thus allows me to think of the “assertoric [judgment] as determined through these laws of the understanding itself, and as thus asserting *a priori*” (ibid.). This means that the conclusion of a syllogism is apodeictic or that it “expresses logical necessity”; it expresses determinacy of thinking in this manner and not in an opposed way (ibid.).

Since a judgment, in virtue of its logical form or *essence* as a judgment, *purports* to be necessary in the sense guaranteed by genuine or rational cognition, the rational form of cognition fulfills a promise that any judgment necessarily makes. The light of reason does nothing more than illuminate grounds already contained (concretely) in our judgments; it is the light of *self-consciousness*.¹⁴⁹ Thus, all genuine cognition is rational; discursive cognition just is, in the core sense, (synthetic) “cognition *through concepts*” (B93; my emphasis).¹⁵⁰ This shows that reason is not a separate faculty distinct from the understanding, or capacity to judge. Indeed, without reason, we could not be sure that the pretenses of the understanding are not empty illusions; what grounds could I have for thinking that these rules of the understanding are genuine, if the gap between the rule and its application (or between how I ought to think and how I do think) is never filled?

Reason thus has the purpose of bringing acts of judgment into agreement with themselves, by fulfilling the rules that they *set themselves*. The premise of a syllogism articulates the rule universally. For instance, the relational function of judgment may express the rule that I ought to think of a certain concept as a subject, rather than a predicate; the quality of the judgment that a predicate ought to be affirmed rather than negated, and its quantity that I ought to think of the predicate as applying to only part of the sphere of the subject-concept, rather than to its entire sphere. By ordering a judgment under its ground in a syllogism, I *determine* the ordering of the concepts in a judgment, along with its quality and its quantity, so that the

¹⁴⁹ In section 19 of the deduction, Kant elaborates on the way in which representations “belong to one another in virtue of the necessary unity of the apperception in the synthesis of intuitions” by saying that they belong to one another “in accordance with principles of the objective determination of all representations insofar as cognition can come from them, which principles are all derived from the principle of the transcendental unity of apperception” (B142). The very nature of judgment as such thus already involves reference to principles in accordance with which we reason.

¹⁵⁰ It is not, on this reading, cognition from intuition! I can never have insight into the fulfillment of the understanding’s functions through receptive awareness of objects in intuition.

judgment is in non-accidental conformity with one of these rules. For instance, in the derived judgment ‘Socrates is mortal’, it is not an accident that I think of <Socrates> as subject instead of as predicate, since I have self-consciously applied the universal rule (in the major premise) that <man> ought to be thought of as subject, rather than predicate, to the particular case. In the derivation of the particular judgment ‘Some men have enemies’, I determine the quantity of the judgment to be *particular*, so as to exclude the possibility of its being universal (‘All men have enemies’).¹⁵¹ My judgments are now in *necessary* agreement with these logical rules of judging in a sense that requires the application of the rules to rest on my consciousness of the rule. That is, it is not due to the way I happen to be affected, to habit or to an accidentally acquired propensity of the mind, that I judge that Socrates is mortal in accordance with the rule that all men ought to be thought of as mortal. Rather, I judge in this manner from consciousness of the universal rule that one ought to think that all men are mortal, i.e. due to my own thinking. Rational cognition thus has the kind of necessity proper to genuine cognition: it expresses the conformity of a judgment with rules guiding my spontaneous, not my receptive powers.

If the “universal principle of inferences of reason” gives an account of the logical validity of all syllogistic reasoning, then it says no more than that exercises of reason must be in non-

¹⁵¹ Kant distinguishes between the particularity of a judgment in its “merely intellectual (abstracted) form” and in its “rational form” (JL 9:103). In the *Prolegomena*, particular judgments with merely intellectual form are referred to as “plurality judgments (as *judicia pluraliva*)”. They are judgments of a *plurality* (i.e. more than one) that rest on comparisons of prior *singular* judgments (P 4:301-302). This priority of actual singular judgments is not a *rational* priority or logical grounding relation, for I do not have an understanding of *why* some men are mortal simply by knowing *that* some are. All that my particular judgment does is take an inventory of what I *already* know: the understanding is employed here as a capacity for analysis or “abstraction”, and not as a capacity to provide a reason. The “intellectual form” of particular judgments goes along with thinking of the particularity of the judgment as accidental: “it is particular only by accident” (JL 9:103). This is because the criteria determining that the judgment is particular are material; I judge ‘some men are mortal’, because I happen to perceive several cases of the mortality of men. The particularity of the judgment in its intellectual form does not *rule out* the universal judgment (‘all men are mortal’). The “rational form” of particular judgments, by contrast, goes along with thinking of the particularity of the judgment as *necessary* or *determined*, and thus as ruling out the universal judgment. In the rational form of a particular judgment, the subject-concept relates to the predicate-concept as genus to species. Since the subject-concept is thus a “broader concept (*conceptus latior*)”, the predicate concept *cannot* apply to the entire sphere of the subject-concept (i.e., the judgment cannot be universal; JL 9:103).

accidental agreement with its rules. Kant formulates it as follows: “What stands under the condition of a rule also stands under the rule itself” (JL 9:120). Here it is important to distinguish the *material* use of reason, in determining an object, and the *formal* use of reason in self-determination. The syllogism explains not only why something is the way it is, but also why *I judge* it to be that way. If we focus on the formal reading of the syllogism as an act of self-consciousness or self-determination, we can think of the *condition* for the application of a rule in a syllogism as *reason itself* (rather than the possibility of subsuming objects under the rule, as on the analytic approach). That is, reason serves as the “condition of a rule” because it is a power to (self-consciously) apply a rule. So what stands under reason, as an exercise of reason, must also stand under the rules in accordance with which reason is exercised.

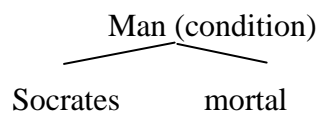
Since the rules under which cognitions stand through reason are rules or functions of *synthetic* judgment, the syllogism cannot be understood as a mere act of subordination under concepts. In the above principle, the “rule” stands for the entire principle or major proposition (*propositio major*), which is a universal *synthetic judgment*. What it is to “stand under the rule” is not for the subject of the conclusion to be subordinated under a higher concept (the major or middle term), but for the conclusion to be “ordered under” the function of judging in the major premise.¹⁵² For instance, I comprehend *why* Socrates is mortal only by understanding the *connection* between what it is to *be a man* and what it is to *be mortal*. And I recognize that it is correct to say that the wicked will be punished on the basis of my knowledge of a *grounding relation* between ‘there is perfect justice’ and ‘the wicked will be punished’.¹⁵³ If the debate

¹⁵² Kant sometimes refers to the predicate in the major premise as the rule, rather than the unity of the whole judgment (see JL 9: 120-121). But it seems to me that the primary sense of ‘rule’ is the entire judgment, to which the condition belongs as a part.

¹⁵³ I think this reading of syllogistic containment enables us to see how the categories, which Kant identifies with functions of judging, are determinate uses of the logical functions. The logical functions are used determinately

between ‘intensionalist’ and ‘extensionalist’ readings of syllogistic containment is read as resting on the distinction between the analytic containment relations between *concepts* (in genus-species hierarchies) and relations between the extensional sets of *objects* contained under the concepts, then this interpretation transcends the debate. What defines syllogistic ‘containment under’ is not analytic *conceptual* containment, but rather ‘orderings under’ *syntheses of concepts*. The syllogistic rests on relations among *concepts* in synthetic judging and not, as the extensionalist readings contend, relations among extensions (understood as sets of objects).

The universal principle of inferences of reason is, on the synthetic approach, a specification of the principle of *synthetic* (rather than mere analytic) unity of apperception, which is the highest logical principle of all uses of reason. According to the principle of synthetic unity, the manifold of cognitions must be brought under the unity of a systematic whole of cognitions. In a categorical inference, for example, the manifold of representations in the conclusion (<Socrates> and <mortal>) must be brought under a synthetic unity represented by the middle term, since it is due to Socrates’ being a man that he is mortal¹⁵⁴:



What syllogisms show is that cognitions are ordered under reason or the ‘I think’ (here concretely represented by the middle term) not through mere analysis, but through (mediated) acts of synthesis.¹⁵⁵ As Kant says, “all representations given to me” do not merely “stand [under

when they determine not only intellectual manifolds, but also the sensible manifolds.

¹⁵⁴ Here I am assuming that the whole inference may be understood to be a single act of (synthetic) judgment whose unity is represented by the middle term: “The combination of that which is subsumed under the condition [the subject of the conclusion] with the assertion of the rule [the predicate of the conclusion] is the *inference*” (JL 9:120). Or as Kant says elsewhere, the syllogism is a “mediate judgment”, a judgment mediated by a synthetic ground (KrV A307/ B364; R 5553, 1778-1779).

¹⁵⁵ I have focused here on categorical syllogisms, which Kant says are the only “genuine” [*eigentliche*] inferences of reason (JL 9:129). Hypothetical and disjunctive syllogisms lack a middle term, but they nevertheless contain a

the original synthetic unity of apperception]” (as an analytic unity of apperception), but “must also be brought [under it] by means of a synthesis” (B135-136).¹⁵⁶

This focus on the synthetic unity of apperception as the highest principle or ‘ground’ of the syllogism also can help us understand the different principles of the three kinds of syllogism: they are distinguished by the kinds of relation (categorical or hypothetical or disjunctive) among representations in synthetic judgments. In all syllogisms, as we have seen, the understanding (in the broad sense) – not something foreign to it - is the condition for the application of a rule. Since the syllogism consists in the determination of the consequence in the conclusion through these relational functions, and since the consequence has necessity or validity through it, the difference in the kinds of relation results in a difference in the kind of necessity or validity that belongs to the consequence, and hence in different principles. These principles of syllogistic reasoning are each sharply distinguished from the *dictum de omni et nullo*, which, to repeat, reads as follows:

What belongs to or contradicts the genus or species belongs to or contradicts all the objects that are contained under that genus or species (JL 9:123).

This “rule”, as Kant calls it, contains no mention of a *synthesis* of concepts. It mentions only subordination, or genus-species relations, between concepts, which, as we have seen, are merely analytic relations of conceptual containment. Just as the analytic unity of apperception rests on a

judgment that *mediates* between ground and conclusion, and thus also are *mediate* inferences, or inferences from synthetic grounds. Much more would need to be said about the differences between the principles of the various kinds of syllogism.

¹⁵⁶ The principle of synthetic unity of apperception functions in a syllogism as a *constitutive* principle, or a ground that is presupposed by any act of self-determination in judgment. We may, in the present context, bracket the use of the principle as a *regulative* principle or ‘maxim’ for the ordering of all cognitions into a systematic whole of *complete* cognition. The constitutive principle, unlike the regulative ones, rests on no *transcendental* principles about the conformity of nature to the idea of a system (cf. KrV A650-1/ B778-9). That is, it rests on no assumptions about the *objects* of cognition, but only on the synthetic unity of apperception, which constitutes the unity of the *subject* of cognition and for which there is no ‘higher ground’. We do not need to look beyond general logic, as the study of the capacity of understanding and reason alone, to become aware of the principles that constitute the unity of the subject as a self-conscious, rational being.

synthetic unity, this analytic rule rests on, and “may easily be deduced” from, the principle of categorical syllogisms (ibid., Note). For concepts stand under other concepts only in virtue of reflecting something they share in common (analytic unity). But what they share in common is the possibility of their use in synthetic judgments. So they reflect the identity of these acts only by standing under the *capacity* to combine representations (synthetic unity of apperception), i.e. only by standing under functions of judging. Hence the above rule “can hold as the first *principle* neither for inferences of reason in general nor for the categorical in particular” (my emphasis; ibid.).¹⁵⁷

4.2.2.3 Reason as a Power

Empiricist skepticism about syllogisms arose from considering cases in which the premises of syllogisms are empirical. For it would seem that in these cases, the major premise is determined by the effect of objects on the mind in experience (*a posteriori*), and does not express the determining power of reason (*a priori*). But if the major premise is merely determined by the ways in which we are affected by objects, then the spontaneity of reason in determining a conclusion can be (at best) a mere ‘relative *spontaneity*’, a *spontaneitas secundum quid*. Reason functions here much like the turnspit in Kant’s example of ‘relative freedom’: it accomplishes its movements of itself only once it is wound up (KpV 5:97). Reason would be initially (in the formation of a principle) jolted into operation through the receptivity of our powers, and only

¹⁵⁷ In his pre-critical work, *Falsche Spitzfindigkeit* (FS), Kant presents an argument for the *dictum de omni et nullo*, in which he emphasizes that marks are “abstracted from” lower marks of things. So if a mark belongs to a *thing*, then it must also belong to all lower marks in that thing from which it is abstracted. This is in line with the above interpretation, since Kant’s argument for the *dictum de omni* here appropriately focuses on analytic containment relations (FS 2:49). Kant then goes on to say that “anybody with even a moderate knowledge of logic can easily see that the *dictum de omni* is true simply for this reason, and that it therefore is governed by our first rule”, namely the principle of categorical syllogisms (*nota notae est etiam nota rei ipsius*) (ibid.). If Kant had spelled out his argument for the latter principle, I think he would have said that it rests on synthetic relations among concepts.

then (in deriving a conclusion) does it continue its operation on its own.¹⁵⁸ This picture of the use of reason as a kind of ‘*automaton spirituale*’ is incompatible with Kant’s *logical* account of the syllogism as *a priori* rational cognition. The determination of a judgment in a syllogism must have a single source in reason alone, if we are to account for the syllogism as a unified self-conscious act of spontaneity. Therefore, the skeptical challenge to the possibility of a priori principles poses a genuine threat to the very possibility of syllogistic logic.

In his answer to the skeptical challenge, Kant does not concede to the empiricist the possibility that reason is *not* a power sufficient to bring about its acts in its theoretical employment. Rather, he attempts to show *how it is possible* that a faculty of absolute (non-relative) spontaneity can be exercised in experience.¹⁵⁹ This requires showing that the *materials* of sensibility may agree with the constitutive logical principles of reason. That is, it requires showing how synthetic *a priori* cognition is possible.¹⁶⁰ The proof that logic has application to objects in material cognition, and hence that the material (and empirical) sciences are possible, belongs not to general logic, but to *transcendental* logic. For general logic abstracts from the materials or contents of thought and concerns only the manner in which the *acts* of thinking or

¹⁵⁸ Sellars proposes this as a reading of the spontaneity of the intellect in its theoretical employment (see Sellars in 2002, pp. 355f.).

¹⁵⁹ It is important to distinguish here between the absolute-relative distinction as applied to spontaneity and the absolute-relative distinction as applied to the relation between the intellect and its objects. Our intellect, in its theoretical employment, does not have cognition of objects from *mere* concepts, and so is not “absolute” in this sense (it is a power of cognition that relies on suitable empirical conditions for its exercise). But it is a faculty of spontaneity in the absolute sense, since its activity is entirely *self*-determined, independently of the effect of objects on the mind.

¹⁶⁰ Thus, when Kant says that “every universal proposition [Satz], even if it is taken from experience (by induction) can serve as the major premise in a syllogism” (A300/ B356), he means any universal proposition that is a concrete instance of a priori synthetic principles can serve as a major premise in a syllogism. Empirical judgments of perception, which are grounded on merely habitual associations, cannot serve as principles, since they contain no genuine ‘universality’ (i.e. the kind of universality that is has a source in reason, and that is correlative with ‘necessity’). Kant would agree with the empiricists that no rational proofs are possible from judgments that are ‘determined’ only *a posteriori*.

judging agree with the principles governing the capacity to think or judge. It does not, that is, consider the manner in which the manifold of sensibility agrees with these principles.¹⁶¹

Aside from skepticism about the possibility of *principles* of rational cognition, one might also raise the objection that these principles cannot be the sole source of the determination of a cognition *within* a syllogism. According to this objection, the application of the universal to the particular in a syllogism rests on an additional source of determination from sensibility.

I have argued that the ground or major premise in a syllogism represents a rule governing the power of understanding or reason, a rule that is *sufficient* to bring about the act of judging in the conclusion. Otherwise, if some *other* source of determination of the conclusion is required, the inference would consist in an aggregate of cognitions from disparate sources. It would not, that is, constitute the unity of a manifold of cognitions under a single principle (or source of determination). But if the major premise in a syllogism is sufficient for bringing about a derivation, why does Kant suggest that the subsumption of a cognition under its condition in the minor premise is also required? As Kant says elsewhere, the understanding [*Verstand*] alone, through a universal judgment, cannot descend to the particulars contained under the universal:

Through the universal of our (human) understanding the particular is not determined, and it is contingent in how many different ways distinct things that nevertheless coincide in a common characteristic [*Merkmal*] can be presented to our perception [...] Our understanding thus has this peculiarity for the power of judgment, that in cognition by means of it the particular is not determined by the universal, and the former therefore cannot be derived from the latter alone; [...] (KU 5: 406-407).

Although this passage is mainly concerned with empirical principles, Kant's point is more general: the understanding [*Verstand*] *alone*, without the resources of sensibility that enable it to

¹⁶¹ It is for this reason that “the explanation of the possibility of synthetic judgments is a problem with which general logic has nothing to do, indeed whose name it need not even know” (A154/ B193). For only if we understand how the materials of sensibility agree with the forms of the understanding can we grasp how synthetic judgments are possible.

function as a power to judge [*Urteilkraft*], cannot relate to particulars. In addition to itself as a faculty of rules, it requires a given manifold of sensibility in order to *descend*, through the power of judgment, from universal rules to particulars. Thus it may seem that the major premise is *not* sufficient for bringing about a determination of the particular, but must rely on something *outside* of itself – namely, determination through a sensible manifold of intuitions – for the derivation.

However, we need not think of the minor premise of a syllogism in this way as “external” to the major premise, or as a separate source of determination. It is true that in a genuine syllogism, the conditions for the exercise of the power are not *analytically* contained in it (the connection of the concepts in ‘all men are mortal’, for instance, does not analytically contain the judgment ‘Socrates is a man’). But this does not entail that the major and minor premises are two separate sources of determination of the conclusion. If we consider the syllogism formally as an act whereby the understanding determines its own exercises, then the mediation – through the minor premise - between universal rule and its application in the conclusion is a mediation through the understanding itself, and not through the effect of objects on the mind. The “unity of apperception” is “the third thing, as the medium of all synthetic judgments”, i.e. of all possible conclusions of syllogisms (A155/ B194). Sensible conditions do belong as *material* conditions to the possibility of the determination of a synthetic judgment, but they do not themselves *determine* the judgment, and hence do not belong to its *formal* conditions. As we have seen, the reliance of the understanding on material conditions for its exercise means only that the understanding is a *relative* (rather than absolute) power, not that it is not a power sufficient for bringing about its acts from itself.¹⁶²

¹⁶² Here, too, much more would need to be said about the nature of this mediation. In a hypothetical syllogism, for

This mediation through the understanding or synthetic unity of apperception allows us to understand why Kant thinks that, when the understanding “acts merely according to its own laws, its effect (the judgment) must necessarily agree with these laws” (A294/ B350). For there is nothing *within* the syllogism that could force it to “depart from its own laws”. All fallacies and errors must therefore be due to something external to the understanding, namely to the external *influence* of sensibility on the understanding:

We cannot seek the ground of errors in the understanding and its essential laws, then, just as little as we can in the restrictions of the understanding, in which lies the cause of ignorance, to be sure, but not in any way the cause of error. Now if we had no other power of cognition but the understanding, we would never err. But besides the understanding, there lies in us another indispensable source of cognition. That is sensibility, which gives us the material for thought, and in doing this works according to other laws than those the understanding does [...]. The ground for the origin of all error will therefore have to be sought simply and solely in the unnoticed influence of sensibility upon the understanding [...] (JL 9:53).

The understanding is a power whose “correct use” – as the subject-matter of general logic - consists in that use through which the understanding “agrees with itself” (JL 9:14). So the consequence of a syllogism will be correct or “valid” if it agrees with the laws of the understanding. Since the understanding is a *power* that (under suitable material conditions) is sufficient for bringing about its own acts, if nothing interferes, the understanding will not deviate in its acts from its own logical principles (or “laws”): its acts will be in agreement with itself.

The objection may be raised that this way of reading Kant’s logic of syllogism threatens to make its principles descriptive, rather than normative. But the objection rests on a false dichotomy. Logical principles (principles of reasoning) certainly constitute a “canon for judging” (A61/ B85) or “*a priori* principles of the correct use of certain cognitive faculties in general”

instance, the mediating judgment consists in the *assertion* of a condition that was merely *problematic* in the major premise.

(A796/ B824). Logic is a *normative* science concerning “principles *a priori* for how [the understanding] ought to think” and not merely “empirical (psychological) principles for how the understanding does think” (JL 9:16). But the normative principles are also principles that *determine* the understanding in its acts of judging, and thus principles governing how the understanding *thinks* if it is not misdirected or influenced from without. *As an a priori science*, logic is capable of determining *a priori* the correct use of the understanding because the logician does not need to await its ‘effects’ on the mind in inner sense in order to acquire formal cognition of the laws governing its activity of thinking and judging. The laws of thinking that it establishes are not contingent laws, taken (rhapsodically) from judgments that it encounters empirically. Rather, they are laws that it discovers *a priori*, from a single principle, namely the principle constituting all use of the understanding in general (the principle of synthetic unity of apperception).

It is sometimes said that the principles governing the understanding can only be normative if our capacity to apply them is a capacity to think either *in accordance* with the principles or *against* them. For the principles can count as normative only if they can be violated. But there is an ambiguity in the claim that the principles “can” be violated. All that is required for the normativity of the principles is that it be *possible* that they are violated, or that fallacies and errors are not *ruled out*. The logical principles for the *correct* use of the understanding must remain binding *even when* they are violated. Nothing in the above account requires us to say that such violations are *impossible*, or ruled out by the conception of the principles. Another reading of “can be violated” implies that we have a *capacity* to violate rules of the understanding. It is *this* view that the above account rules out, not only because it is absurd to refer to the possibility of error as a kind of capacity, when in fact it is a sign of an incapacity, but also because there are

no *a priori* principles at the logician's disposal from which she *could* determine how the understanding might divert from its own laws. The possible ways in which the human intellect may be imperfect or fall into errors are infinitely manifold, since they have their source in the manifold ways in which the understanding may be affected from without. And so there is no possibility of gaining insight into their possibility prior to these "effects" or *a priori*, through an inner principle. The investigation into the conditions under which such errors occur does not belong to a *pure* general logic, but must be left to the empirical discipline of "applied logic", which "is directed to the rules of the use of the understanding under the subjective empirical conditions that psychology teaches us" (A53/B77).

4.3 LOGICAL VALIDITY

If Kant's logic is read from the background of contemporary views about the purpose and aims of logical inquiry, it can seem to run afoul of several fundamental logical distinctions. In particular, Kant seems to confuse meta-level and object-level formulations of the principles of the syllogism. On the one hand, he treats them as principles *of* reasoning, which suggests that they can be regarded as inference rules (or inference "tickets"). On the other hand, he also treats them as principles or rules that could be used *in* reasoning, for instance in his formulation of them as propositions.¹⁶³ But there are also problems that arise in treating principles in either manner.

¹⁶³ Nussbaum, for example, remarks that "While there may be some justification for calling 'if – then' a rule of connection, there seems very little for regarding *an individual hypothetical statement itself* as a rule" (Nussbaum 1992, p. 290).

If we treat the principles of inferences of reason as inference rules in the contemporary sense, we run into difficulties in understanding Kant's claim that they provide an account of the 'logical *must*' or *validity* of inferences, i.e. an account of why it is that it is "logically *necessary*" that we infer in the ways we do, rather than in an opposed manner. For on this reading the principles each express nothing more than a formal *syntactic* rule: whenever you are presented with a cognition that stands under a condition of a rule, you should also judge that it stands under the rule. But mere syntactic rules tell us only how we ought to manipulate symbols in a language; they do not tell us anything about validity or the relation of *consequence*. Hence the need for a metalogical proof, through which the rules employed in syllogistic reasoning are shown to be rules that generate valid arguments. This leaves us with a puzzle: why doesn't Kant (or Aristotle) provide any such proof? Why does he instead simply assert at the outset that the validity of syllogisms "rests on" their *principle*? A common approach among interpreters of Aristotelian logic has been to deliver metalogical proofs that they found missing in the tradition, and in this way to vindicate traditional Aristotelian logic as a fragment of the more complete systems of contemporary logic.¹⁶⁴

Interpretive problems also arise in taking the principles to express propositions. Łukasiewicz and, following him, Patzig, have argued that Aristotelian syllogisms are properly understood as conditionals in which the conjunction of premises functions as an antecedent and the conclusion as consequent.¹⁶⁵ This allows them to represent the principles of perfect syllogisms as axioms or conditional propositions, and thus to represent the whole of Aristotelian

¹⁶⁴ Corcoran and Smiley are examples of Aristotelians who take this approach.

¹⁶⁵ Łukasiewicz, pp. 20-30; Patzig, pp. 3-4. Łukasiewicz attempts to show that the rules of the perfect syllogism figure as axioms, and that all imperfect syllogistic forms can be deduced from them. Smiley ('What is a Syllogism?') and Corcoran ('Aristotle's natural deduction system') propose instead that the Aristotelian syllogistic must be understood as a natural deduction system.

logic as an axiomatic system. But recall that for Kant, as for Aristotle, the syllogism allows us to represent the necessity of the *conclusion*. According to Łukasiewicz and Patzig, this is a misunderstanding. For it suggests that the syllogism shows a conditionally necessary truth – i.e. a truth that is necessary under a certain condition - to be strictly necessarily true when its condition is fulfilled. But it is clearly not the case that all conclusions of syllogisms are necessarily true (witness ‘Socrates is mortal’); and they are not *made* necessarily true simply by figuring as conclusions in a rational syllogism. Interpreters thus maintain that Kant was wrong (as was Aristotle) to suggest that the syllogism allows a subject to become aware of the necessity of a *proposition* [*Satz*] through the subsumption of its condition under a universal rule. Instead, he should have said that the syllogism expresses the necessity of the *conditional relation* between premises and conclusion: namely, that the conclusion is necessarily true *if* the premises are.¹⁶⁶ Both Kant and Aristotle did not properly understand Aristotelian syllogisms, because they did not sufficiently distinguish between the necessary truth of an *implication* and the necessity of the *fact* stated by its consequent (Patzig, p. 25).

These attempts to revise or to supplement traditional logic are blind to an alternative understanding of the role of logical principles in our thinking, because they assume a strict dualism of the logical and the psychological on the one hand, and of logic and epistemology on the other. If, following Kant, logic is understood as a canon for the correct use of our *cognitive capacities*, including their use in deriving judgments in syllogisms, and if our cognitive capacities differ from the capacities of the brutes by being essentially self-conscious capacities, then we must acknowledge the principle *in* a syllogism (its major premise) to be a law governing the use of the power of reason, and hence to be a specification of the universal *a priori* principle

¹⁶⁶ Stuhlmann-Laeisz, pp. 68f., Tolley 2007 considers this as a possible reading of what Kant really meant by ‘necessity’, but does not commit himself to it, at p. 464.

of reasoning (the principle of syllogisms). That is, the principle in a syllogism must be a concrete instance of the principle of a rational power, such that the correctness of the conclusion arises from the uninhibited use of one's powers, i.e., that use that agrees with the principle guiding the power. Otherwise, if the principles in reasoning were not principles of a rational power, we could never self-consciously employ them. For then our consciousness of the unity of the whole syllogism (as an act of reasoning in accordance with rational principles) will be distinct from consciousness of each of its parts. Thus, one would have to explain – through some *further* principle - how the unity of the whole is joined with the unity of each of its parts in order to constitute a single act or analytic unity that we could accompany with the “I think”. But since these principles are each thought of as external to that which they unify, the regress of principles is vicious, so there can be no ‘beginning’ or source of the unity of the whole syllogism, and hence no single act through which I could become self-conscious.

Kant's account of the principle *of* syllogistic reasoning thus transcends the debate between those who think that the principles of Aristotelian syllogisms are axioms (Lukasciewicz and Patzig), and those who treat them as rules of inference in a natural deduction system (Smiley, Corcoran, et al.). The principles of syllogistic reasoning, for Kant, are neither object-level axioms nor meta-logical inference rules; that is, they are neither ‘inside’ nor ‘outside’ the inference in the ways envisioned by the debate. They are instead identical with the principle in the syllogism, as principles of its correct *use*. I am conscious of this use of a judgment in deriving a conclusion not through consciousness of a meta-logical rule *distinct* from the act of inferring, nor through an additional premise, but through a consciousness that is *identical* with the inferring itself, and that only *as such* deserves the title of *self*-consciousness.

The logical principles of reasoning are not at all *syntactically* formal principles; it is not that Kant first discovers rules in accordance with which we reason, and then, in a *further step* (e.g., in transcendental logic), proves that these rules generate valid arguments. Instead, the validity of arguments is taken to be self-evident in our reasoning, since validity consists in the correctness or *necessity* of the act of judging in the conclusion that follows from its determination through the principles guiding the power it exercises. Like Aristotle, we might begin logic by simply pointing to examples of valid arguments; we do not need to *prove* their validity, since any reasoner, as a self-conscious being, is already (implicitly) conscious of the validity of its acts, as acts of a rational power. The purpose of logic is not to expand our cognition, or to lead to new (and more subtle) insights, but rather to reflect on what we are already conscious of in the common practice of judging and reasoning. Logic is for this reason *analytic*.

Just as syntactic formality has little to do with the formality of Kant's logic, the contemporary notion of semantic validity has little in common with Kant's conception of validity. For Kant, the validity of inferences is not indifferent to the actual truth or cognitive status of the propositions in an inference. Like the traditional skeptics of the syllogism, and contrary to contemporary dogma, Kant did not divorce logic from epistemology. As we have seen, the connection among concepts and judgments in inferences is not a connection among any arbitrarily chosen concepts and judgments (which may or may not be cognitions), but rather expresses necessary relations among them, such that it is not arbitrary which representations can enter the relations. The semantically valid argument 'If the moon is round, philosophers are awkward; the moon is round, so philosophers are awkward' is not *valid* in Kant's sense, because it contains no necessary grounding relation between judgments in its major premise. My

representations can be held together in a *necessary* unity with one another only if they constitute a self-sustaining act of (non-accidentally true) cognition. The logical form of rational cognition indicates that my judgment is ‘anchored’ in grounds or *determined* by principles of reason such that there is nothing that can challenge this unity or lead to its dissolution. The necessity of the conclusion of an inference thus should be understood as the necessity of an *act of cognition*, and should be distinguished both from semantic validity and from the *objective* necessity that a given object S must be P and cannot be otherwise.

I suppose it may be argued that this focus on the understanding’s acts makes Kant’s logic “subjective”. But this can easily lead to misunderstanding. Kant thinks of the “necessary universal validity” of an act of cognition as correlative with the transcendental logical concept of “objective validity” or truth: if a cognition has necessary and universal validity, then it is true (and vice versa) (P 4:298).¹⁶⁷ Logical (necessary and universal) validity rests on “the agreement of cognition with itself or - what is one and the same - with the universal laws of the understanding and of reason” (JL 9: 51). *Objective* validity of cognition, by contrast, rests on the necessary agreement of the *objects* with our forms of thinking, and presupposes agreement of *sensibility* (or ways in which I may be affected) with functions of the understanding. Since general logic abstracts from the role of sensibility in cognition, it cannot be a logic of objective validity. But it would be mistaken to conclude from this that it is not a logic of objective cognition. To assume that it is not would be tantamount to the claim that the understanding cannot be understood as a capacity for *cognition*, but at best a capacity for thoughts and judgments that may *or may not be* cognitions. That is, it would be to assume that the

¹⁶⁷ I have assumed here, and in other places in this dissertation, that “objective validity” is the (non-accidental) truth of cognition. This is suggested in several passages (see, for instance, Kant’s claim that the necessary validity of cognition is due to correspondence with objects at A104-5). However, more argument would be required to support this as a reading of Kant. See Engstrom, “Kant on Objective Validity, Truth, and Judgment”.

understanding must be determined by something outside of itself to function as a power for cognition. But this ‘hybrid’ conception of cognition as resting on two sources of *determination* is not compatible with what Kant says about judging and inferring in general logic. The determinacy of cognition, as Kant argues, must be understood as resting on mere *self-*determination in our thinking.

When Kant says that the “general and necessary rules of the understanding” discussed by general logic concern only the “form of truth, i.e., of thinking in general, and are to that extent entirely correct but not sufficient” (A59/ B84, cf. JL 9:51), he does not mean that logical functions of the understanding cannot, when operating properly under sensible conditions, be sufficient for the material truth of cognition. Rather, he means only that we must consider their *particular use* under sensible conditions in order to recognize the material truth of a particular cognition. Self-consciousness in an act of judging is not *sufficient* for consciousness of an object because we cannot, from the *general functions* of the understanding alone, predict whether their operations in particular instances will constitute true judgments. But we do know *a priori*, and independently of particular cases, that the functions *can* be exercised in true cognitions, for we know already from the function of the understanding that it is a power of cognition.¹⁶⁸

¹⁶⁸ The point can be illustrated using the model of Aristotelian forms. From the universal life-form of a whale, I cannot predict how this whale will behave today, but can only say how whales *in general* behave, when in suitable conditions.

5.0 CONCLUSION

Kant's general logic has been attacked on two fronts. From the side of analytic philosophy, it has seemed to be overly restrictive in scope, since it ignores relational predicates and the logic of multiple quantification. It has also seemed to be replete with gross logical mistakes, due to its failure to distinguish between object-level and meta-level treatments of logical principles and rules, its failure to distinguish between objects and concepts, and its patent conflation of logic and psychology. From the side of post-Kantian German idealism, Kant's logic has either been accused of triviality and empty formalism or dismissed as a subjective logic of contingent rules and deprived of the honorary title of a "science" [*Wissenschaft*]. To conclude this study, I would like to step back from our discussion of logical form and consider how it may equip us to answer both sorts of complaint.

5.1 LOGIC AND SELF-CONSCIOUSNESS

What I have called the 'analytic approach' to Kant's logic is, in several respects, an attempt to make Kant's logic seem more respectable in the eyes of contemporary philosophers. The analytic approach finds room in Kant's logic for the distinction between concepts and objects, and even (when applied to inference) for the notion of semantic validity. It acknowledges that Kant's

general logic is in many respects idiosyncratic, but also allows it to enjoy the prospect of being extended and modified by contemporary quantificational logic, rather than entirely replaced by it. This ‘positive’ assessment of Kant’s logic is predicated on the assumption that we can find in Kant a conception of the discipline of logic that is not very distant from our own. In particular, the analytic approach attributes to Kant an understanding of the ‘formality’ and ‘generality’ of logic that could, in principle, gain credence among philosophers adhering to a contemporary conception of logic.

As we might expect from its emphasis on *analytic* unity of apperception, the analytic approach takes the most central and defining characteristic of pure general logic to be its *generality*. Logic is concerned with general rules of *analysis* in the formation of concepts, in the subsumption of representations under concepts in judgment, and in inferring judgments from one another. These rules are general because they range over all possible uses of the understanding. But the understanding can be used in these ways only because it also *relates to objects*: its acts of *analysis* presuppose prior acts of *synthesis*. To account for this, the generality of the rules of logic must extend to all possible *objects* or contents of thought: they must be valid for all objects of thought, whether or not they exist, and regardless of their status as appearances or noumena (i.e., it must be possible to subsume any object under concepts in judgment, in accordance with rules of analysis). Now, if logic is general in this sense, it follows that it must also be *formal* in the sense that it is concerned with ‘forms of thinking’ or rules of analysis that are the same across all substitutions for the ‘materials’ that belong to thought. That is, logic is understood to be formal because it is concerned with rules of analysis that are *invariant* under all substitutions of semantic content and objects of the representations used in thought. In addition to this ‘positive’ characterization of formality, which does not allow of a distinction between formality and

generality of logic, logic is also formal in the ‘negative’ sense that it considers these rules *in abstraction* from all semantic content of the representations used in thought. If it were not formal in this sense, its rules would be valid only for particular kinds of objects, say, objects of cognition, and hence would not be valid for all objects in general. Thus, the formality of logic is understood as resting on its generality.¹⁶⁹

The notions of formality and generality that emerge from the analytic approach obviously have much in common with presuppositions in contemporary logic: the validity of arguments is taken to be a property they have independently of the semantic contents of their non-logical concepts. And the laws of logic are understood to be generally valid for all possible *objects* or contents of thought. Although the analytic approach may emphasize that Kant’s logic is concerned with the mental activity of *analysis* in judging and inferring, the rules governing analysis do not themselves have their origin in mere analysis. Instead, they have their source in the possibility of relations to objects – with which general logic has nothing to do.¹⁷⁰ Indeed, the analytic approach does not rule out the possibility that we can consider these logical rules in abstraction from their source in the mind, and hence purge Kant’s general logic of its psychologistic overtones without substantial damage to his logic as a whole.

In this dissertation I have argued that the analytic approach does not sufficiently acknowledge Kant’s novel conception of the understanding as, in the first instance, a capacity for *synthesis* or combination, which replaces a more traditional conception of the understanding as a capacity for analysis. This shift in focus has important consequences for understanding the

¹⁶⁹ This claim is most clearly stated in MacFarlane’s “Frege, Kant, and the Logic in Logicism” (2002) and in his dissertation, ch. 4.

¹⁷⁰ Longuenesse, for instance, argues that “the ‘self-cognition of reason merely as to its form’” in general logic depends “on transcendental philosophy”. “Thus the rules of logic derive their necessary character from their relation to the original synthetic unity of apperception”, meaning (for Longuenesse) that they derive their necessary character only from relations to objects, which general logic abstracts from (Longuenesse 1998, p. 75).

formality and generality of ‘general logic’. In particular, it turns out that these notions in Kant have little in common with contemporary views. One of the lessons to be learned from the *synthetic* approach to Kant’s logic is that philosophers cannot go on complacently assuming a conception of *what logic is*. The attacks on Kant’s logic have been misguided not because Kant’s logic has the resources to answer them, but because they have assumed a radically different conception of logic from Kant’s own.

We have seen that logical rules and principles cannot be divorced from their origin in the original-synthetic unity of apperception. Self-consciousness rests on consciousness of the *unity* of an act of judging, which is constituted by the synthetic unity of a whole of cognitions to which the judgment belongs as a part. What it means to be conscious of the unity of judging is to be conscious of the agreement of the act of judging with the logical laws governing the capacity to judge, since these laws are conditions of the possibility of the synthetic unity of cognition. Kant’s logic does not distinguish between object-level and meta-level treatments of logical rules, because the rules articulate the self-consciousness *in* an act of cognition (rather than a separate meta-consciousness *about* the act). The logical functions of judging, for instance, articulate the consciousness in a judgment of its own validity, or agreement with laws of the understanding. The principles of inference articulate the self-consciousness in the use of a concrete principle *within* a syllogism, that use that constitutes the *validity* (or necessity) of the inferred judgment. And the formal logical concepts such as the <I think> are not distinguished from the form of concepts in general, because the former articulate the self-consciousness that belongs to any concept as such.

Kant’s logic is *formal* precisely because it is concerned with the origin of cognitions in “original-synthetic unity of apperception” alone. Since this is a *simple* unity, or a unity that

contains no manifold within it, and since, as the unity of a finite intellect, it cannot generate a manifold from itself alone, logic does not, in considering this unity, have in view the materials of sensibility, and hence cannot have in view the objects of thought. A fortiori, it cannot have in view the distinction between concepts and objects. Logic concerns only the *self*-activities of the understanding, or the manner in which the understanding determines its own *acts*, and not the manner in which it determines *sensibility*. It is “formal” in a sense that contrasts with “material”. Thus, Kant says in the *Groundwork* that “formal philosophy is called **logic**, whereas material philosophy [...] has to do with determinate objects and the laws to which they are subject” (G 4:387). According to this division, transcendental logic, which concerns the “rules of the pure thinking of an *object*” (KrV A56/B80; my emphasis), belongs to *material* philosophy.

The *Jäsche Logic* elaborates on this distinction between formal and material philosophy. Metaphysics asks “what the understanding cognizes and *how much* it can cognize or *how far* its cognition goes”. It concerns the understanding’s “self-cognition in regard to its material use”, or its use in relation to objects. “In logic”, by contrast, “the question is only, *How will the understanding cognize itself?*” (JL 9:14). It contains only “the rules for the agreement of cognition with the laws of the understanding and of reason” (JL 9:15). Moreover, as a *pure* logic it is concerned with the understanding alone, independently of the other receptive powers of the mind through which it can be influenced or misdirected: “In pure logic we separate the understanding from the other powers of the mind and consider what it does by itself alone” (JL 9:18).

The formality of Kant’s logic is thus inseparable from its *a priori* ‘psychologistic’ concern with the formal use of the understanding, i.e., its use in relation to *itself* (in an act of

cognition), rather than in relation to *objects* outside of itself. This may seem to be contradicted by a passage in the *Jäsche Logic*, according to which

Logic is a science of reason, not as to mere form but also as to matter; a science a priori of the necessary laws of thought, not in regard to particular objects, however, but to all objects in general (JL 9:16).

Here it may sound as though logic is ‘formal’ in a sense that does not entirely abstract from relations to objects. It is formal merely because it abstracts from the *kinds* of objects to which it relates; metaphysics or material philosophy, by contrast, considers a particular kind of object.

This reading, which is advocated by the analytic approach, is corroborated by an earlier passage:

in [*transcendental logic*] the object itself is represented as an object of the mere understanding; universal logic, on the contrary, deals with all objects in general (JL 9:15).

However, immediately preceding these passages logic is said to be “a science of reason not only as to its mere form but as to its matter, since its rules are not derived from experience, and since at the same time it has reason as its object [*Objekte*]” (JL 9:14). The use of the term ‘object’ in these passages is extraordinary. It is extended to include *reason itself*, which strictly speaking is not an object of thought, but a subject of thinking. Because general logic is concerned with “reason as its object”, it is also concerned with all possible ‘materials’ belonging to reason, i.e. all possible contents of thought, to the extent that they too are *the product of reason*, and thus involve a ‘formal’ element. The concepts ‘form’ and ‘matter’ are *relative* concepts, since what is ‘matter’ for some ‘form’ may in turn be ‘form’ for another ‘matter’: concepts, for instance, are the materials of judgments, but relate to the conscious intuitions out of which they are formed as *form to matter*. Indeed, nothing can belong to reason that is not itself an act of reason; it must be ‘form’ *all the way down*. Hence, the ‘formal use’ of reason in relation to itself alone may be understood as extending down to all materials belonging to reason.

Read in this way, these passages do not conflict with the earlier passages on the ‘formality’ of general logic in contrast with the ‘materiality’ of transcendental logic. These two logics are not distinguished as *general* and *specific* logics, but rather as *formal* and *material* philosophy. That is, general logic is not concerned with all objects or contents of thought in general in contrast with the particular objects at issue in transcendental logic, because general logic can only be concerned with the *formal* uses of the understanding, or with the understanding and reason as its ‘objects’. Transcendental logic, by contrast, is concerned with the material use of the understanding in relation to an object that is not the understanding itself, but something other than it.

Where does this leave us in understanding the generality of logic? It follows from the above conception of formality that the *generality* of logic cannot consist in its applicability to *all objects* of thought, as advocates of extensionalist and analytic approaches to Kant’s logic have argued. Logic is *general* not because it reflects what is common to all contents or objects of thought (= x), but because it reflects functions (activities) that are common to, or contained in, *all my* acts of thinking. That is, the generality of logic is to be understood as the generality of the understanding itself, or its reflection of the forms or functions of the understanding that are shared in common by my representations. This explains why Kant often invokes the notion of ‘form’ when articulating the notion of generality:

A **general** but **pure** logic therefore has to do with strictly a priori principles, and is a canon of the understanding and reason, but *only in regard to what is formal in their use*, be the content what it may (empirical or transcendental) (italics added; A53/B77).

As general logic it abstracts from all contents of the cognition in the understanding and of the difference of its objects, and has to do with nothing but the *mere form* of thinking (italics added; A54/B78).

[...] the universal and necessary rules of thought *in general* can concern *merely its form* and not in any way its matter (italics added; JL 9:12).

What all my representations *share in common* is the “mere form” of thinking; and this form is distinguished from the material objects of thought. As we have seen, the form of all thinking is the simple (indivisible) synthetic unity of apperception contained in all my acts of thinking. If logic is formal, then it *must* also be general; for the synthetic unity of apperception is not the unity of a singular representation or intuition, but is identical throughout the manifold of representations, and hence is an *analytic* unity of apperception (the source of all generality as such). The generality of logic thus rests on its formality for the same reason that the analytic unity of apperception presupposes a synthetic one.

The division between general and *specific* logics is parasitic on that between formal (pure general) and material (transcendental) logic. This is because one must first determine whether logic reflects the merely *formal* use of the understanding or its *material* use before one can determine *what* the *sphere* of logic is, and hence before one can determine how it is divided into ‘species’ (special logics). Kant mentions the special logics in the context of a discussion of pure general logic, which suggests that the special logics each concern a particular sphere of the *formal* use of the understanding (A52/B76). So when Kant says that each of the special logics “contains the rules for correctly thinking about a certain kind of objects”, he means that they each contain rules for the formal use of the intellect in a particular sphere (a sphere delimited by certain kinds of object to which the understanding may direct its attention), not that they are each concerned with the rules of the material use of the intellect in relation to certain kinds of *objects* (ibid.).

The conception of logic that emerges from the synthetic approach should be an occasion for philosophers to reexamine their understanding of logic. The complaint that Kant’s logic is overly restrictive in its scope has rested on a conception of the generality or scope of logic that is

foreign to Kant's own. In this dissertation I have not provided an argument for Kant's claim that his table of the logical functions of judging is *complete*, despite the conspicuous absence in it of polyadic predication and multiple quantification. But I have suggested that any such proof of completeness must acknowledge Kant's view that the sphere of logic that he claims to have 'completely' exhausted in his table of judgments is the sphere of the understanding itself, as a *synthetic unity of apperception*.¹⁷¹ To insist that this conflates logic and psychology, or that it does not allow Kant's logic to fulfill the tasks to which contemporary logics are subjected, is to dogmatically reaffirm the conception of logic on which those tasks rest.

5.2 AGAINST EMPTY FORMALISM: KANT'S ORGANIC CONCEPTION OF LOGICAL FORM

The post-Kantian German idealist tradition was not skeptical about the connection between logic and self-consciousness. But Hegelians in particular have had other axes to grind. Hegel, in his disparaging remarks about Kant's general logic and the distinction between *form* and *content* on which it rests, seems to picture Kant as oscillating between two equally intolerable horns of a dilemma. On the first horn, the logical laws of thinking are derived from the 'I think', and the manifold of representations must be brought *to* the 'I think', or into agreement with these logical laws. Kant's philosophy, in adopting this position, has "the merit of giving a correct expression to the nature of all consciousness"; for the "positive reality of the world must be as it were

¹⁷¹ Of course, more argument is needed for establishing the generality of logic in this sense than I have been able to provide in this dissertation. In particular, it would need to be argued that even mathematical thinking is subject to the laws of logic as Kant conceives of them. It was primarily out of a sense that his logic could not apply to mathematical thinking that contemporary 'mathematical' logic was born.

crushed and pounded, in other words, idealized” (Hegel, *Enz.* §42, p. 69). But the unity to which the manifold is reduced is an *empty* unity that eliminates all differences: “the ‘I’ is as it were the crucible and the fire which consumes the loose plurality of sense and reduces it to unity” (*ibid.*). Kant’s ‘I’ thus *imposes* forms on independently given, alien materials without being “so kind as to leave individual things to their own enjoyment” (*ibid.*, pp. 69-70). The other horn of the dilemma *retains* the differences and plurality of the manifold, but only at the cost of deriving the logical laws not from a single a priori principle (the ‘I think’), but in a rhapsodic manner from empirical sources (e.g., from textbooks on formal logic). Thus, Hegel complains that Kant took the categories “from the subjective logic in which they were adopted empirically” (quoted above in the introduction; *Logik* II, p. 44).

Hegel thinks that Kant entangles himself in this dilemma of choosing between what we might call ‘impositionalism’ on the one hand, and the merely ‘historical’ or empirical approach to logic on the other hand, because he adopts the standpoint of *Verstand*, according to which “thought [is] a mere subjective and formal activity, and the objective fact, which confronts thought, [has] a separate and permanent being” (*Enz.* §192, p. 255). But if what I have argued in this dissertation is correct, form and matter are not related in Kant’s logic in the perilous way Hegel imagines. Kant avoids the dilemma through his ‘organic’ understanding of the form-matter relation, which rests on his claim that the “synthetic unity of apperception” (not analytic unity) is “the highest point to which one must affix all use of the understanding, even the whole of logic” (B134n.).

The charge of ‘impositionalism’ of empty forms rests on a misunderstanding of the most general requirement of Kant’s logic, the requirement that thought should be in agreement *with itself*. Hegelians read this requirement as imposing *empty identity* on the contents of

representations, by reducing the manifold of representations to the “empty representation” ‘I think’ (KrV A346/B404). This, it is assumed, can teach us nothing more than that all of my representations are *mine*. But as I have argued, the ‘mineness’ of representations rests on the *logical* requirement not only of logical consistency, but also of necessary self-agreement in *cognition* (B114). And the unity of cognition, as the unity of a systematic whole of cognitions under a single principle, cannot be an entirely empty unity that eliminates all differences among the materials of thoughts without ceasing to be the *unity of cognition*. For instance, it cannot be arbitrary which concepts can enter the subject-position of a categorical *judgment*, since the form of the judgment implicitly involves consciousness that I ought to think of a certain concept as subject and not as predicate. In order to be held in necessary unity with one another in a whole of cognitions, the materials of the judgment must each exhibit the purposive activity of the whole. That is, the materials of logical forms of judging and inferring *are* materials of these forms only in virtue of being *suitable* for the forms; they are not crushed and pounded by the forms, but rather integrated by them into an organic whole. As Kant says, a “science” or systematic unity of cognitions cannot arise from the mere “similarity of the manifold or the contingent use of cognition *in concreto* for all sorts of arbitrary external ends” but must arise from the “affinity” of all parts with a single purpose or “inner end” (A834/ B862). Just as nothing in an organized product of nature is “in vain, purposeless, or to be ascribed to a blind mechanism of nature”, no part of a genuine judgment or inference (or more generally, of a science as a whole) is arbitrary, blindly chosen, or without use in the self-sustaining activity of the whole (KU 5: 376). The activity of reason is a “purposive activity” that is contained in each of the materials belonging to the whole (B128).

The inner purpose of any judgment, as we've seen, is the unity of a whole of cognitions. The judgment is both an "end" in relation to its parts (so that the parts play a role in sustaining it) and "reciprocally a means" for the sustenance of the parts. But the judgment is also a means in relation to the end of the systematic whole of cognitions and itself an end sustained by the whole (just as, in an organism, "everything is an end and reciprocally a means as well" KU 5:376). So the form of the whole, and the relations to other judgments, are not *external* to the judgment itself. "Speculative reason [...] contains a truly articulated structure of members in which each thing is an organ, that is, in which everything is for the sake of all" (Bxxxvii-viii).

When Kant says that the 'I' is a "wholly empty representation", he means only that a finite intellect cannot generate a manifold of representations out of itself through mere self-consciousness (A346/B404). He does not, that is, mean that abstracting away from the contents and objects of thought leaves us with empty forms that are entirely indifferent to the differences among materials of thought. Logical forms of cognition (judgment) cannot even be understood as *schematically* formal, if by that we mean that they are valid for any *arbitrary* substitutions of their non-logical concepts (in the same way that mathematical schemata are indifferent to the 'materials' that fill them in empirical intuitions). They may be understood to be schematically formal only under the condition that there are restrictions on what an 'instance' of the schemata will be. As we have seen, there is a sense of 'matter' that is not extraneous to formal logic. Even the 'identity' and 'difference', 'agreement' and 'opposition' among contents of concepts belong within the domain of a logic concerned only with the 'formal use' of the understanding, because these are concepts of *logical reflection* that express the understanding's relation only to itself. Thus, it does not conflict with the formality of logic that the presence or absence of logical

contradictions rests on the agreement or opposition among the *contents* of concepts in a judgment.¹⁷²

The organic conception of logical form is closely related to Kant's belief that the universal and necessary rules of logic are not external standards to which cognition is subjected, but standards internal to the power exercised in cognition. Of course, one might also say of an "*automaton spirituale*" that it operates according to its own 'internal' principles. What distinguishes the spontaneity of our cognitive capacity from an automaton, on Kant's view, is that its acts, like the movements of an organism, are *determined* by nothing external to it, even in its initial awakening from the dormancy of the intellect (i.e., its awakening to self-consciousness).¹⁷³ Just as the life of a dog may be assessed with regard to its fulfillment of those inner standards that define what it is to be a dog and that govern its self-determined movements, the life of the intellect is subject to its own *self*-assessment with regard to the constitutive logical standards that govern its self-determined activities.

I think that it can be argued – although I cannot do so here – that self-consciousness requires a purposive, organic conception of the unity of reason. It may at first seem that the teleological vocabulary that Kant uses to describe the unity of reason is entirely foreign to general logic, since it has its proper home only on the periphery of Kant's philosophy, in his

¹⁷² Some Hegelian sympathizers maintain that Kant could not hold onto the form-content distinction because the logical form of judgments cannot be determined without looking to the contents of the judgments. Sally Sedgwick, for instance, maintains that "there is reason to doubt that general logic is self-sufficient in the sense that its nature and function are determined independently of background metaphysical assumptions". Its formality is thus a merely "conditioned formalism" (Sedgwick 1996, pp. 141-142). Michael Wolff similarly argues that "die Geltung der formalen Logik einschließlich ihres obersten Prinzips (des Satzes vom Widerspruch) als bedingt angesehen werden [muß]" (Wolff in Tuschling, p. 196). It is not clear to me whether Hegel shares this kind of skepticism about the form-content distinction.

¹⁷³ The functions of the understanding are *normative* because they serve the inner purpose of a teleologically structured system, i.e., that purpose through which the understanding sustains the unity of a whole of cognitions. As we have seen, we do not need to think of the 'actions' of the understanding [*Verstandeshandlungen*] as resting on choice or the will to see why logical principles are normative; their normativity requires only the inner *telos* of sustaining the unity of cognition through the functions of judging.

reflections on particular kinds of objects in nature (organisms). But if self-consciousness in an act of thinking demands that we think of the unity of the act as presupposed by it, and that we think of all activities of the understanding as guided by the inner telos of the whole of cognitions, then it will be necessary to include ‘teleology’ in this minimal sense (i.e. a sense that does not yet involve the notions of ‘life’ or ‘existence’) in one’s logic.¹⁷⁴

¹⁷⁴ This may seem like a stretch to contemporary thinkers. Even those who recognize that organic *form* does pick out a logical form or particular *kind* of unity of thought may not accept the claim that *all* functions of thinking rest ultimately on the organic unity of thinking itself. Michael Thompson, for instance, complains that we do not find the concept of ‘life’ on Kant’s table of categories (Thompson, p. 25). But he thereby assumes that that is where it would belong, as a species of a more generic, non-organic (Fregean) form of thought. Kant, by contrast, suggests that the unity of reason *itself*, and thus of the *whole table* of functions of judging, must be understood as an organic unity.

APPENDIX: PROFILING KANT'S POSITION ON THE FORM OF DISCURSIVE CONCEPTS IN RELATION TO HIS PREDECESSORS

A.1 THE EMPIRICIST ACCOUNT OF CONCEPTS

Kant's understanding of the form of a discursive concept can be brought into greater relief if it is contrasted with that of his empiricist and rationalist predecessors. My portrayal of these views is not meant to be historically accurate, but to get a clearer picture of Kant's alternative to empiricist and rationalist accounts of generality from a *Kantian* perspective on pre-Kantian history.

Locke famously maintained that some of our ideas are universal, not because they are abstracted *out of* complex ideas of particulars, but because they abstract *from* various ways in which particulars differ (E III.iii. 9). In abstraction, the mind "makes nothing new, but only leave[s] out of the complex Idea [of the particulars] that which is peculiar to each, and retain[s] only what is common to all" (E III. iii. 7: 411). Since the mind "is wholly passive in the reception of all its simple ideas" (E II.xii.I: 163), this means that there must be something in the *content* of received complex ideas of particulars that is general, or shared in common. These features are only *recognized* as general, however, once the mind *reflects* on these observable resemblances and *abstracts* from the ways in which particulars differ. Only then do we say that ideas themselves have generality: "Ideas become general by separating them from the

circumstances of time and place, and any other ideas that may determine them to this or that particular existence. By this way of abstraction they are made capable of representing more individuals than one [...]” (III.iii. 6).¹⁷⁵

Hume, like Berkeley, criticizes the Lockean view by arguing that general content cannot be received by the mind. There are only particular ideas (i.e. ideas of particulars), Hume maintains, because only particulars that are fully “determin’d in [...] degrees both of quantity and quality” can become present to the mind through the senses (T I.I.7.4 p. 18). Hume takes for granted that “every thing in nature is individual”. It is absurd to think that “a triangle really [exists], which has no precise proportion of sides and angles” (T I.I.7.6 p. 18). This, together with Hume’s claim that things in nature are only accessible to the mind through the impressions we receive of them and his “copy principle” (ideas are copies of impressions) entail that it is just as absurd to think that there are general ideas. Ideas also cannot be *made* general through abstraction, because this would imply that one could separate what is general from what is

¹⁷⁵ Longuenesse’s view of Kant is remarkably Lockean (as she herself points out). According to Longuenesse, my perceptions of the spruce, willow, and linden share something in common because they each involve the schema of the concept ‘tree’. That is, the *schema* of the concept ‘tree’ is operative as a ‘rule’ governing and ordering my perceptions prior to the possession of a discursive *concept*. It is because of the presence of a common schema in a manifold of representations that concepts can be formed – i.e. concept-formation proceeds through comparison of schemata. But where does this schema come from? Longuenesse’s answer to the question of schema-formation is that the *same* acts of comparison and reflection that lead to the formation of a discursive concept generate the schemata prior to concepts. The schemata are thus generated through pre-discursive acts of analysis. But now we must ask, what, at this level, is being compared? Longuenesse suggests that it is the schemata themselves that are compared in generating the schemata: “[...] to compare schemata, by means of the three joint acts of comparison, reflection, and abstraction, is first of all to generate these schemata. Thus the schemata result from the very acts of universalizing comparison of which they are the object” (Longuenesse 1998, pp. 116-117). (Henry Allison’s interpretation of “reflection” closely follows Longuenesse’s account: Allison 2001, pp. 20-30.)

Initially this may seem to relocate the danger of circularity at a lower level: the schemata are generated through acts of comparison of the very same schemata. However, Longuenesse seems to want to avoid circularity through her interpretation of the way in which schemata are already present *prior* to our possession of them through comparison and reflection. She suggests that they are present “in an intuitive” or “unreflected state” in the sensible representations themselves (ibid., p. 118). This, she explains, means that universals belong, at the lowest level, “to the existence of things (they represent resemblances lending themselves to ‘rules of apprehension’)” (ibid., p. 120). But if this is true, the schemata may be said to belong to the existence of things independently of our consciousness of them. If this is Kant’s view, then Kant did not acknowledge Hume’s point against Locke: representations would be *given* to the subject as sharing something in common with one another.

particular *in thought*. If this were possible, then it would also be possible to separate these within the *things themselves*.¹⁷⁶ But it simply is not the case that “the precise length of a line is [...] different or distinguishable from the line itself” (T I.I.7.3; p. 17).

From a Kantian perspective it should not be surprising that Hume denied the possibility of general ideas, since Hume famously denied that he has any idea that represents the *identity* of the *self*. If the identity of the self throughout the manifold of its representations cannot be represented through an idea, then, Kant maintains, it should also be impossible to represent general ideas.¹⁷⁷ For how should I become conscious of ideas as sharing something in common, if I cannot become conscious of the same “I” that thinks them? Now, Hume drew this drastic consequence from the impossibility of finding within himself any *impression* of a self that remains the same throughout the manifold of its representations. As we have seen, Kant agrees with Hume on this point: no such *impression* (or empirical intuition) can be found. Kant would thus also agree with Hume’s criticism of Locke: there is no basis for saying that impressions are *given* or *received* as sharing something in common with one another. Kant’s advance over Hume does not consist in a rejection of these Humean insights, but in providing an alternative to Humean resignation that Hume himself does not consider.¹⁷⁸ Kant argues that consciousness of the identity of the self is not *receptive* consciousness of something other than myself (it is not a passive impression), but is *spontaneous* self-consciousness.¹⁷⁹ It is only through self-

¹⁷⁶ Hume presupposes here what Allison calls a “separability principle”: what we can separate in thought must also be separable in the things themselves (see Allison 2008, pp. 35-46).

¹⁷⁷ Kant of course would not accept Hume’s use of the term ‘idea’ here. But you may read these points as points about concepts in Kant’s sense.

¹⁷⁸ It’s not that Hume is *wrong*; it’s that he’s *ignorant* of a possibility Kant sees.

¹⁷⁹ We should not too hastily conclude from the fact that concepts are *made* with respect to their *form* that Kant is not a realist about universals. Vuilleman draws this conclusion, I think, without considering the sense in which concepts are “made”: “Daher kann das, was die eigentlich logische Natur des Begriffes konstituiert, nämlich seine Form, nicht gegeben sein: sie ist unser Werk. So nimmt Kant Abschied von dem Realismus der Universalien” (Vuilleman p. 312).

consciousness that we are conscious of identity of content in a manifold of representations. This leads to Kant's (non-Humean) diagnosis of Locke's error: Locke was right to think of the generality of concepts as made from reflection and abstraction of given representations, but he mistakenly confused reflection (self-consciousness) with "empirical reflection" (consciousness of oneself in inner sense).¹⁸⁰ That is, he failed to distinguish between reflection of spontaneous activity or self-consciousness and the reflection of what is passively received by the mind in inner sense.

Hume, despite his blind spot with respect to genuine logical generality (which, Kant argues, rests on pure apperception), nevertheless thinks that he can account for a kind of generality of ideas that is sufficient "for all the purposes of reflexion and conversation" (T I.I.7.7, p. 18). This kind of generality is not abstract, as it was for Locke, because it is a way of representing "all possible [particular] sizes and all possible qualities" rather than "representing no particular one at all" (T I.I.7.2, p. 17). We do not need to assume that we have infinite powers to represent all possible particulars. All we need is the "imagination". Through the imagination, the mind may acquire a habit or custom, enabling it to represent a manifold of *particular* ideas, even when the particular objects of those ideas are not present. For instance, if the mind repeatedly perceives branches, trunks, and leaves together, it will come to associate these with one another through the (reproductive) imagination, thus enabling it to reproduce the representation of leaves upon seeing a trunk and branches, even when it has no present perception of leaves. Eventually the mind will acquire a habit of recalling ideas of trees in the

¹⁸⁰ This may be understood to be Kant's point when he notes in the Amphiboly that "Locke totally sensitized the concepts of understanding in accordance with his system of noogony (if I am permitted this expression), i.e., interpreted them as nothing but empirical or abstracted concepts of reflection" (A271/ B327). However, the point I wish to make above pertains to logical reflection, whereas Kant's main concern in the Amphiboly is with transcendental reflection.

appropriate contexts, and can thus be said to have a “general” disposition to produce the idea in relation to particular objects. It does not matter for our present purposes whether we take the subject to acquire this disposition by repeatedly seeing trees, or whether it comes from training measures in the subject’s initiation into an inferential practice of giving and asking for reasons.¹⁸¹ The important point here is that the *generality* of an idea, for Hume, is only a respectable notion if it consists in the generality of an acquired *habit*. Since habits are subjective, or belong only to particular subjects, this leads Hume to deny that general ideas represent anything general in things themselves.¹⁸² Indeed, we are most charitable to Hume if we read him as saying that a general idea does not *represent* anything general at all. For his insight was that one can *never* infer a consciousness of the same in a reproduction from an ability to reproduce the same consciousness. The generality of an idea thus consists merely in a subjective propensity to reproduce a certain kind of representation in various contexts.

Kant makes several concessions to this Humean account of concepts in his account of given *empirical* concepts.¹⁸³ But it is important to keep the similarities between Humean and Kantian accounts of empirical concepts at a distance from the issue of *generality* as the form of

¹⁸¹ Despite Brandom’s arguments against empiricist (relational) accounts of conceptual *content*, I think he remains an empiricist in his conception of a general disposition. He would probably argue that this empiricist notion has nothing to do with the logical universality of a concept, but only with the *possession* of a concept. Since Kant does not distinguish the concept from the possession of a concept, a non-empiricist account of possession is absolutely crucial to his view of concepts.

¹⁸² Hannah Ginsborg’s interpretation of Kant’s positive account of concept-formation enriches the Humean account of general dispositions by adding consciousness of the “normativity” of certain dispositions even prior to a concept. I think that Ginsborg is right to emphasize that consciousness of normativity cannot arise from mere Humean dispositions. And like Ginsborg, I think that the acquisition of Humean habits and dispositions does play an important role in empirical concept-formation (although I would emphasize the priority of the “I think” over the habit). But contrary to Ginsborg, I do not think that Humean dispositions play a role in *all* concept-formation – in particular, they seem to be absent from Kant’s account of a priori concept formation. (See Ginsborg, 1997, pp. 59-67 and 2006, pp. 48-60).

¹⁸³ Just as all judgments of experience emerge from prior judgments of perception, I think it can also be shown that all empirical concepts arise from the kinds of concepts employed in judgments of perception. In this respect, Kant’s account of empirical concept-formation does rest on the acquisition of prior habits, as on Hume’s view. See *Prolegomena*, 4:300ff.

all concepts, regardless of whether they are a posteriori or a priori. On this issue Kant is quite clear that generality of a *concept* does not consist in the generality of a *habit* (which, as in Hume, rests on the *imagination*), but in the generality of a *capacity to judge* (the *understanding*).¹⁸⁴ Kant agrees with Hume that one cannot infer objective generality from the generality of a subjective habit, any more than one can infer the representation of a necessary succession in objects (causation or objective necessity) from a necessary succession of representations in me (subjective necessity). But Kant argues that the generality of certain kinds of habits (those that have the potential to become objective judgments) itself *presupposes* the ability of the subject to apperceive or reflect on the identity of herself in a manifold of her representations. There could not so much as be an identity in the various perceptions that, through reproductive syntheses of imagination, lead to the acquisition of a habit, without presupposing the identity of the “I think” in the manifold of its perceptions (i.e. without an analytic unity of apperception contained in *productive* syntheses of imagination). Or as Kant says in §18 of the deduction, the “empirical unity of apperception” (the unity of empirical associations), which “has merely subjective validity”, is “derived” from the “original unity of consciousness” (KrV B140).

Thus, regardless of whether concepts are merely subjective (i.e. are only of what is valid for my own private states), or objective (i.e. are applicable to objects of cognition), their generality always comes from a reflection of “analytic unity of apperception”, or the identity of the ‘I think’ in all my representations. This identity, we’ve seen, presupposes a “synthetic unity of apperception”, which Kant identifies with the *understanding*, a capacity to judge. The

¹⁸⁴ One should not, as so often happens in contemporary discussions, indiscriminately speak of “dispositions” without clarifying what it is one is speaking of. A spontaneous “capacity” (*Vermögen*) is quite different from a receptively acquired disposition or habit – and it is important to note these differences if we wish to assess Kant’s claim that logical form (including the form of a concept and the forms of judgment) has its source in the capacity to judge.

understanding is operative not only in syntheses of concepts (intellectual manifolds) in judgment, but *also* in syntheses of a *sensible* manifold in intuition and perception (B93-94). So concepts rest on functions of the understanding in a sense that leaves it *open* whether those functions are objective judgments or whether they consist in the functions that underlie the merely subjective association of empirical intuitions.

A.2 THE RATIONALIST ACCOUNT OF CONCEPTS

There may seem to be an obvious way in which Kant's logic of concepts differs from rationalist accounts: whereas the latter assume that there are innate concepts, all Kantian concepts must be *formed*. But Leibniz's innatism is not the crude view that we are born with explicit consciousness of innate principles or concepts. Instead, he maintains that certain principles are innate "like the way in which one has implicitly in mind the suppressed premises in enthymemes, which are omitted in our thinking of the argument as well as in our outward expression of it" (NE I ch.i 76). They must be *made* explicit "by attending carefully and methodically to what is already in our minds" (ibid. 77).

On Leibniz's view, then, we are not born with concepts, but with dormant consciousness of something general that is then awakened or "attended to" in the generation of a concept. What makes his innatism un-Kantian is not that concept-formation begins with representations that are general in themselves, but that this generality pertains to representations even in the absence of difference. That is, Leibniz nowhere suggests that a *manifold* of representations is required as a condition of the possibility of reflecting identity in that manifold. Innate ideas are there, implicitly in the mind, even without sensibility and a manifold: indeed, Leibniz (through the

mouthpiece of Theophilus) argues that it is because “the senses are inadequate to show [the] necessity [of necessary truths]” that these truths *must* be innate, or must come from “the understanding alone” (NE I ch. i 80). What he means by this is that the mind must have some implicit grasp of them *prior* to affections by the senses, in the same way that “the veins of the marble outline a shape which is in the marble before they are uncovered by the sculptor” (ibid. 86).

From a Kantian perspective Leibniz’s view is just as much committed to the myth of the givenness of identical content as Locke’s was. For a discursive intellect such as ours, reflection of identity can only occur in an environment of *difference*. I cannot become conscious of a common or shared capacity to judge independently of an awareness of various representations given from elsewhere. For if my awareness of a “consciousness in general” were *not* dependent on a prior awareness of a manifold of representations, it would have to be a singular representation that contains all particular manifolds within it, and hence would have to be an (intellectual) intuition. Kant’s denial of the possibility of intellectual intuition is thus an acknowledgment of the inseparability of the “I think” from a concrete manifold of representations; the “I” does not exist in separation, but *within* various representations that are various and manifold only because we have sensibility, or the capacity to *receive* manifolds from elsewhere.

It follows that general contents such as ‘redness’ also do not exist in separation from various different contents (the red book, the red rose, etc.), since I cannot become conscious of what is common to various objects independently of consciousness of ways in which they differ. If I could grasp universals *in separation*, I would not require a special capacity to *combine* representations in judgments. For I would then be able to immediately relate to ‘redness’ itself,

independently of consciousness of the possibility of applying the concept <red> to various things in judgments. The reliance of our intellect on a given manifold is here, too, connected with the discursivity of concepts, or their character as “partial representations” that exist only *in* a manifold of possible combinations of representations.¹⁸⁵

There is a sense in which Kant will grant that logical and metaphysical concepts are “given a priori”, and that they have their origin in the understanding alone. And Kant is deeply indebted to Leibniz’s own advance over Locke in distinguishing between mere “perception” and “apperception”, or between empirical reflection through inner sense and logical reflection in the formation of concepts. But we should keep these similarities separate from the differences between Kant’s conception of the form of a concept and Leibniz’s. Leibniz does not deny that the senses are required for making *implicit* awareness of innate principles *explicit*: “it is true that without the senses we would never think of [intellectual ideas]” (ibid. 81). But Leibniz does not notice that the senses are *also* required for the presence of “implicit” awareness of these logical principles themselves. So the senses do not merely have the role of making explicit what was merely implicit, but also of making possible *implicit* awareness of the *identity* among my representations that is reflected by logical concepts. We could not so much as be primitively self-conscious without a manifold of representations given from elsewhere (i.e. from sensibility).

This difference between the two thinkers may be expressed in Kant’s terms by the difference between a “preformation-system of pure reason” or “noology”, which Kant attributes to Leibniz, and his own “system of the epigenesis of pure reason” (KrV B167; see also A854/

¹⁸⁵ One might compare these arguments to Aristotle’s critique of the “separation” (*chorismos*) of Platonic forms. It is important for understanding the non-separability of forms that my consciousness of differences among representations is merely a condition under which I can become conscious of identity. A concept does not reflect identity and in addition to that, difference, but rather reflects identity *in* difference. The logical act of reflection thus has priority over comparison in concept-formation; for although the understanding can recognize its identity only in an environment of difference, it is not the differences, but the identity, that is reflected through a concept.

B882). Whereas Leibniz thinks of the identity reflected by concepts as implanted in us as “subjective predispositions for thinking”, and as requiring merely the *unfolding* or actualization of those predispositions, Kant’s view is that even the identity of the ‘I think’, along with its ‘moments’ in the logical functions of judging, is possible only under conditions of sensibility (ibid.). To say that identity presupposes a manifold of representations given through sensibility is not to say that identity emerges *from* sensibility, or that our concept of ourselves (the “I think”) is culled from experience. But it is to say that there *is* no self – in the sense that belongs to a discursive intellect – without receptivity.

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