THE ROLE OF REFLECTION IN KANT'S CRITIQUE OF PURE REASON

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Abstract: There are two prevailing interpretations of the status which Kant accorded his claims in the *Critique of Pure Reason*: 1) he is analyzing our concepts of cognition and experience; 2) he is making empirical claims about our cognitive faculties. I argue for a third alternative: on Kant's account, all cognition consists in a reflective consciousness of our cognitive faculties, and in critique we analyze the content of this consciousness. Since Strawson raises a famous charge of incoherence against such a position, I begin by showing that this charge is misplaced.

In the first preface to the *Critique of Pure Reason*, Kant characterizes his enterprise of critiquing pure reason as a "task of self-cognition of reason." Invoking a legal metaphor which will pervade the book, he calls this critique a "tribunal" instituted by reason to determine "the lawful claims" of pure reason and "dismiss its groundless pretensions," and to do so "according to its own eternal and immutable laws" (Axii). This critique, he continues, is one of "the faculty of reason in general, in respect of all cognition after which it may strive *independently of all experience* (ibid). For the faculty of *pure* reason is our faculty for "establishing and developing all those sciences which contain a theoretical a priori cognition of objects" (B20). And since metaphysics numbers among these sciences (along with pure mathematics and pure natural science), the critique of pure reason "will therefore decide as to the possibility of metaphysics in general, and determine its sources, its extension and its limits – all in accordance with principles" (Axii).

But what of the credentials of this court? How is reason supposed to have this insight into its own nature, this self-cognition of reason? These

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questions are pressing. After all, Kant holds that the critique of pure reason itself constitutes the essential part of transcendental philosophy, the new, redeemed metaphysics which it is supposed to establish (A12/B25ff). Thus, it seems, if this critique is to show how metaphysics is possible as an a priori science, it must show how it is itself possible as an a priori science.

There is a virtual consensus among his commentators that Kant has no satisfactory answers to these questions, that he failed to work out a conception of the methodology and justification of his critique of pure reason.[1] What is worse, P. F. Strawson holds, Kant's critique lays down a decree which it itself must violate in order to establish, and is thus inconsistent. For, he argues, the critique of pure reason purports to show that the sphere of all our possible synthetic a priori cognition is delimited by experience (call this "the boundary condition on cognition"). Contrary to the pretensions of traditional metaphysics, we cannot have cognition of what lies beyond the bounds of our experience. The elaborate argument which has this conclusion is, however, given in terms of a faculty psychology: a complicated account of how our sense, imagination, and understanding in tandem give rise to our experience. How, then, are we supposed to cognize these operations of the mind? Given the limitation of our cognition to possible objects of experience, it would seem that this cognition would have to be of the phenomenal self: that is, the self as it appears in inner sense and as the object of the cognition we have in empirical psychology. But it seems that, since the phenomenal self is itself, as an object given in experience, supposed to be a product of the operations of our mind which produce our experience, it cannot, as such, be the subject which performs these operations. Indeed, Kant clearly does not regard his account of these operations as belonging to empirical psychology. He holds, rather, that these operations are to be ascribed to the noumenal self, the self as it is in itself. So Kant rests his boundary condition on human cognition on claims about things which lie beyond the bounds of our experience and which thus themselves violate this condition.[2]

This problem of inconsistency in the critical philosophy has had a considerable influence on recent Kant scholarship. Strawson uses it to motivate his reconstrual of Kant's critique of pure reason as an exercise in conceptual analysis. On his view, Kant's "imaginary discipline of transcendental psychology" is an unfortunate carry over from his predecessors (especially unfortunate because it lead him to his transcendental idealism), but one which is not essential to his enterprise. Other commentators have since argued that Kant not only should have, but actually did, conceive of his transcendental philosophy as conceptual analysis.[3] W. H. Walsh's reaction is, instead, to regard the claims about our cognitive faculties at the heart of the critical philosophy as resting on "contingent, empirical truths." Recently, Patricia Kitcher and Derk Pereboom have, in a similar

vein, proposed that the psychology of the *Critique of Pure Reason* is, strictly speaking, empirical, insofar as it is to be justified by appeal to our experience. But, they claim, this account is still a priori in Kant's sense, because it rests only on highly general facts about the character of our experience, and not on any particular experience.[4]

I will argue that the problem Strawson raises is not a genuine one. It arises from misunderstanding both the boundary condition on cognition and the nature of the self-cognition in which critique is supposed to consist: the boundary condition constrains only our cognition *of objects* – where the cognition is understood to be of objects *as such* – and Kant denies that the self-cognition of critique is cognition of the subject of thought *as an object*. Appreciating this point will open the way to understanding Kant's conception of the methodology and justification of his critique of pure reason, one in which reflection is accorded the key role.

But what, then, is this notion of an object? Kant's most general notion of an object is simply that of the object of a representing – a represent*ed*. In this sense, an object can be a *mere* represent*ed*, such that it cannot exist apart from being represented. But the relevant notion of an object is a narrower one, rendered weighty by connection to Kant's notion of a thing (*Ding*, *res*). A thing is a substance and, thus, capable of existing outside a representation, and in the weighty sense of 'object,' not just any represent*ed*, but only a represented thing counts as an object. Thus, Kant's weighty notion of an object is that which representations stand for, but which is itself distinct from, so as to correspond to, representations.

It is this weighty sense of 'object' that is in play when Kant remarks that the categories are "the only concepts which relate to an object in general" (A290/B346). For, in an Aristotelian vein, Kant thinks of the categories as the highest genera of being, genera through which we classify things in respect of their accidental, as well as substantial, being. Kant holds, moreover, that the categories function as such (i.e., as the highest genera in a taxonomy of different species of being) only in conjunction with objective content supplied by our faculty of sensible, or passive, intuition. For, he maintains, the categories can be used to distinguish between different species of things, thereby taking on objective significance and constituting concepts of determinate objects, only insofar as they are necessary for unifying appearances given in our intuition in an experience of an object. This point is what lies behind Kant's characterization of the categories as "concepts *of objects in general*, by means of which the intuition of an object is regarded as determined in respect of one of the logical functions of judgment" (B128; cf. B346/A290). And, for parallel reasons, Kant's characterization of the weighty notion of an object brings in the notion of intuition: "An object (*Objekt*) is that in the concept of which the manifold of a given intuition is united" (B137). I will return to these characterizations of an object and the categories below. For the

present, we have seen enough to have some initial idea of what Kant means by 'object' in the phrase "cognition of an object."

We have next to see how Kant's notion of a cognition *of an object* is pivotal to his conception of a critique of pure reason. Recall that pure reason is our "faculty for establishing and developing all those sciences which contain a theoretical a priori cognition of *objects*" (italics added). Consider, too, the way in which, in the Introduction to the first critique, Kant elaborates his conception of a critique of pure reason by introducing his notions of transcendental cognition and transcendental philosophy:

> I entitle *transcendental* all cognition which is occupied not so much with objects as with the mode of our cognition of objects in so far as this mode of cognition is to be possible a priori. A system of such concepts might be entitled transcendental philosophy. (B25; cf. A56/B80–1)

Thus, transcendental philosophy, including the critique of pure reason, is, as a system of transcendental concepts, not itself exactly a species of the cognition *of objects* which this critique has as its primary subject matter. Kant says that transcendental cognition is occupied "not so much" with objects, because, although such cognition does not directly concern the objects of our cognition, in concerning the mode of our cognition of objects it concerns the objects of our cognition, considered generally. For he holds that the mode or form of our cognition of objects constitutes the essence of phenomena taken generally. In transcendental philosophy we cognize objects only insofar as, in cognizing the form of our cognition of objects, we cognize the general essence of these objects (i.e., phenomena).

Now since the boundary condition on human cognition is something which critique establishes, we would expect that this condition concerns only cognitions *of objects*. When we turn to the passage in the Transcendental Deduction of the Categories, in which Kant argues for the boundary condition, we are not disappointed; the only restriction he sets is on our cognition *of objects*:

> We can think of no object save through the categories; we can cognize no object so thought save through intuition, which corresponds to these concepts. Now all our intuitions are sensible, and this cognition, insofar as its object is given, is empirical. But empirical cognition is experience. *Therefore, no a priori cognition is possible for us, except of objects of possible experience.* (B165–66; cf. B146f)

It is thus only insofar as critique constitutes cognition of an object that it is constrained by the boundary condition.

What drives Kant's limitation of the objects of our cognition to phenomena is the thought that, in order to cognize an object, i.e., a thing,

we must be able to establish its real possibility (Bxxvi*n*). We can, through the categories, think of objects which may, in fact, be really possible, but which we cannot show are really possible. For example, our idea of God is, although a thought of an object (it employs the categories of substance, cause, etc.), not a cognition of an object, because we cannot establish that God is a really possible thing. To be sure, our idea of God is, on Kant's view, logically consistent, so that it is a thought of a logically possible object. But establishing that an object is really possible requires something more than determining that our concept of that object is logically consistent. Now, where phenomena, or things as they appear to us, are concerned, determining their real possibility consists in determining the formal conditions of our experiencing them (i.e., that their appearances be given to us, through sensation, in time, the form of our inner sense, and in such a way that the categories apply to them). For phenomena are nothing more than things as they appear to us in our sensible intuition, things insofar as they are objects of our experience. And, as we will see, Kant holds that we can, in transcendental critique, determine a priori the formal conditions of our experience of objects, because an a priori cognition of these formal conditions is essential to all our cognition of objects – indeed, this a priori cognition is constitutive of the form of our cognition of objects. What ultimately lies behind the boundary condition on cognition is Kant's contention that the only way in which we can know the real possibility of an object of our thought is by cognizing the formal conditions of our cognition of objects.

How the self-cognition we have, in critique, of our cognition of objects is not *per se* cognition of an object can be clarified by considering Kant's celebrated attack on rational psychology in the Paralogisms chapter of the first critique. Rational psychology (among whose practitioners number Descartes and Leibniz) purports to establish, merely on the basis of the *cogito*, that the subject of thought is a soul – a simple, incorruptible substance. Central to Kant's attack on this purported science of the soul is his insistence, which pervades this chapter, that the *cogito* is not a cognition of the subject of thought as an object, i.e., as a thing:

> *Modi* of self-consciousness in thought are not by themselves concepts of objects (categories), but are mere functions which do not give thought an object to be cognized, and accordingly do not give myself as object (B406–7; cf. A346/B404, A350, A354, A256, A397, A399, A402, B408–9; and B411)

The "self-consciousness in thought" in question is what is expressed by "I think"; it is what Kant terms "pure apperception." This self-consciousness, according to Kant, is the consciousness one has, in thinking, of oneself as the subject, or agent, of this activity of thinking. The "*modi* of this self-consciousness" are the functions, or rules, which one is aware of

employing in this activity; a key premise of the Transcendental Deduction of the Categories had been that it is in being aware of the identity of one's act of thinking and of the functions one employs in thinking that one is conscious, throughout a thought, of the subject of thought and so is self-conscious in thought.[5] Now, in the Paralogisms, Kant is emphasizing that this purely intellectual (spontaneous) self-consciousness does not constitute an intuition and so, not giving "thought an object to be thought," does not give oneself "as an object." Pure apperception thus does not *per se* – that is, apart from its material determination through the addition of the contents of inner sense – constitute a cognition of an object. In particular, Kant emphasizes that, although in pure apperception we are conscious of the spontaneity of our thinking, this consciousness is not a cognition of the subject as an object – i.e., as a real thing which is the first (uncaused) cause of one's thoughts. Indeed, we could never determine whether such a spontaneous activity is in fact really possible, let alone actual, because the only intuition we have is sensible, and a spontaneous activity cannot, as such, be given in a sensible faculty. The rational psychologist, thus, in the absence of any non-sensible intuition of the subject of thought, goes ahead and mistakenly takes the functions of thought in self-consciousness to be categories (i.e., as determining a given intuition in a cognition of an object) and thus claims to have cognition of a thinking thing (*res cogitans*).

According to Kant, the rational psychologist's mistake is irresistible precisely because, although "the modi of self-consciousness in thought" given in pure apperception are not themselves categories, we do cognize the categories, as modes of our pure thought of objects, in pure apperception:

> … the thinking I (the soul) … does *not cognize itself through the categories*, but cognizes the categories, and through them all objects, in the absolute unity of apperception and so *through itself* (A402).

To my knowledge, this passage has been entirely overlooked by Kant's commentators. But it provides a key to his conception of the methodology and justification of his transcendental philosophy. This cognition of the categories which we have in pure apperception is, we shall see, one of the categories as making up, "in the absolute unity of apperception," the form of our cognition of objects. And, as Kant's claim that the subject cognizes all objects through itself makes clear, it is not just our theoretical cognition, had in transcendental philosophy, which has this reflective structure. Our pre-theoretic cognition of objects, insofar as it realizes the form of our cognition of objects, also includes this reflective cognition. Moreover, I will argue, it is this pre-theoretic cognition which in critique is articulated and systematized under the principle of the synthetic unity of apperception.

Kant's conception of transcendental cognition, his statement of the boundary condition, and his critique of rational psychology – all indicate

that the sense in which critique, in yielding cognition of the form of our cognition of objects, constitutes self-cognition, is a sense in which this cognition does not violate the boundary condition. I would suggest, then, that Strawson offers Kant a false dichotomy when he asks whether the self-cognition of critique is cognition of the phenomenal or noumenal self. These selves are our two ways of regarding the subject of thought as an object of cognition: the phenomenal self is the subject of thought considered as the object of our cognition (a cognition of things which requires being affected by those things and thus is of those things only as they appear to us in our sensible, i.e., passive, faculty of intuition); the noumenal self is the subject of thought considered as the object of a divine mode of cognition (which creates the object in cognizing the object and thus can be of the thing as the thing is in itself). The self-cognition of critique is not cognition of the subject of thought as an object, and thus is not cognition of either.[6] Kant's critique of pure reason thus leaves room for its consisting in a priori self-cognition of our cognition of objects – cognition which is transcendental, because it is cognition of the way our thought of objects constitutes cognition, as against mere thought, of objects.

If his critical philosophy is not subject to Strawson's charge, Kant is not driven by his boundary condition on cognition to choose as his philosophical methodology either conceptual analysis or empirical psychology. He can maintain both that the claims of his critique are not based on the analysis of our concept of experience (so that his talk of cognitive faculties is a misleading third wheel) and that these claims are also not empirical, in the sense that they are not derived in any way from our experience. We may, nonetheless, think that he, and we, should still feel some pull toward one or the other of these two dominant conceptions of the critical philosophy. After all, Kant goes to great lengths to show how synthetic a priori cognition of objects is possible. Since this enterprise itself rests on his critique's claims about the operations of our cognitive faculties – cognition of the subject, *albeit* not as an object – if he holds that these claims are not empirical, then does he not owe us some account of how they can constitute cognition?

In the remainder of this essay, I want to sketch part of what I take to be Kant's positive account of the methodology and justification of his critique of pure reason. I will focus, in particular, on an account, implicit in the first critique, of how in this critique we come to have a theoretical a priori cognition of the operations of our cognitive faculties. We will see how Kant conceives of his critique of pure reason as strictly a priori and independent of empirical psychological claims. And we will see that he conceives of his procedure, not as an exercise in conceptual analysis either, but as an analysis of our faculty of understanding. On this reading, Kant's idiom of cognitive faculties is indispensable to his conception of his enterprise.

In outline, Kant's account of transcendental critique develops and extends a standard seventeenth and eighteenth century conception of

logic. On this conception, logic is a science of the natural operations of our understanding – namely, of conceiving, judging, and reasoning. In logic, we improve our pre-theoretic, or "common," understanding of these operations by reflecting on these operations.[7] So, for example, in logic we reflect on our judgments to isolate their forms (e.g. that of categorical judgment) or on rules which govern these operations, such as the principle of non-contradiction. Kant develops this conception by holding that reflection is not merely something we do in the theoretical enterprise of logic, but is constitutive of these natural operations of the understanding: thus, all the natural operations of our understanding already contain an a priori cognition of forms of thought and of the rules which govern our thinking. In the theoretic reflection of logic, we reflect in such a way as to isolate these forms and rules, thereby heightening and articulating our pre-theoretic a priori consciousness of them. Moreover, through this theoretic reflection we order these forms and rules into a system to produce the science of logic. Kant extends this conception of logic to transcendental philosophy by assigning these natural operations of the understanding the task, not only of giving our thoughts their logical form, but of giving empirical intuitions the form of our cognition of an object and thereby generating our experience. As in logic, in transcendental philosophy we reflect in such a way as to isolate the form of our cognition of objects and thereby heighten and articulate our pre-theoretic cognition of this form had in the reflection which constitutes our experiences of objects. Moreover, through this theoretic reflection on the form of our cognition of objects, we order the transcendental concepts making up this form into a system to produce the science of transcendental philosophy.[8]

Let me fill out this outline in four stages. The first will consist in a sketch of Kant's conception of the logical form of our thought, the second, in that of the form of our cognition of an object. As we will see, the latter makes an essential reference to the former. Whereas logic articulates the logical form of our thought, transcendental philosophy, concerning the form of our cognition of an object, explicates the way in which the logical functions of judgment are implicit in this form. The third stage will consist in looking at Kant's account of the methodology and justification of logic, and the fourth, finally in examining his parallel account of the methodology and justification of transcendental philosophy.

1) Logical form, for Kant, is a feature of operations, so acts, of our mind which are rooted in its nature. It is not, as most since Frege have held, a feature of propositions (e.g., their capacity to be true, or the truth-preserving relations among them). Thus, any treatment of Kant's account of logical form must begin with his conception of thinking as the act of uniting representations in one consciousness (*Prolegomena* §22). Now this uniting is one which brings about the unity of representations in one consciousness in representing them in one consciousness (B129f). Because

thinking is thus, of its essence, a self-representing act (for it consists in representing a relation to one subject of consciousness which it thereby brings about, and so is a representing of itself), Kant sometime refers to it as reflection.[9]

On Kant's view, logical form derives solely from the understanding, a point which explains his calling it logical: for the logical is what concerns the understanding, and understanding is, by definition, a faculty of spontaneity, i.e., a faculty of "bringing representations forth from itself" (B75/A51). All other determinate unities derive from the conjunction of a mode of logical form with sensible content, that is, content which derives from our faculty of receiving representations by being affected (this includes self-affection). And since logical form constitutes the unity essential to the intrinsic activity of understanding – unifying representations in one consciousness – its modes delimit the range of unities of representation we can bring about in one consciousness. Indeed, since he holds that all activities of the understanding can be reduced to that of judgment, Kant maintains that the logical functions of judgment, in particular, constitute the modes of unity which we can bring about in one consciousness (cf., *Prolegomena* §22).

The reading of logical form presented thus far can be confirmed by looking at the opening paragraphs of the Amphiboly chapter of the first critique. In these paragraphs, Kant holds that the only relations which concepts can bear to each other in our consciousness are those of the following four pairs of concepts, which he terms "concepts of reflection": identity and diversity, opposition and agreement, the inner and the outer, and the determination and the determinable (form and matter) (A261/B317). Thus, in the judgment "All horses are mammals," we employ the concepts of reflection to represent the form of this judgment: the concepts of identity and diversity to represent its quantity as universal, the concepts of agreement and opposition to represent its quality as affirmative, the concepts of the inner and the outer to represent its relation as categorical, and the concepts of the determination and the determinable (form and matter) to represent its mode as apodeictic. Kant calls our act of representing these relations among representations, "reflection," and this act insofar as it unites representations through the logical functions of judgment by giving concepts the logical form of a judgment, "logical reflection" (A262/B318). And, because he holds that thought consists precisely in the representation of these relations among representations (which itself produces these relations, indeed, by constituting these relations), Kant holds that reflection constitutes thought (*Anthropology* §7; AA7, 141).

2) I turn now to Kant's account of the form of our cognition of objects. This form differs from the logical forms of judgment in being rooted, not merely in the nature of our understanding, but also in that of our sensibility. For present purposes, we need attend only to the aspect

of this form which is rooted solely in the understanding and thus must derive from the logical functions of judgment. Much as the logical form of thought constitutes a relation in concepts which our understanding first brings about in representing it, so too the purely intellectual aspect of the form of our cognition of objects constitutes the form of any possible object of our cognition, in constituting the unity of a manifold of given intuition. (Recall that an object is "that in the concept of which the manifold of a given intuition is united" (B137).) For this unity is one which our understanding first brings about in representing it. This unity, moreover, constitutes "the determinate relation of given representation to an object" in which our cognition consists (ibid). To see what this relation consists in, we need to see how the categories constitute it, and thereby constitute the intellectual aspect of our cognition of an object.

Consider, then, Kant's characterization of the categories as "the concepts of an object in general by means of which its intuition is regarded as *determined* in regard to one of the *logical functions* of judgment" (B128f). Let us begin with its implication that the logical functions of judgment do not, merely as such, constitute the form of our cognition of an object. Kant's idea is that, these functions, in uniting concepts in a judgment, do relate the manifold of an intuition to each other, but not in such a way as to represent their relation as one which obtains in an object (i.e., as against one which obtains merely in the subject). What relates intuitions to an object in this way are the categories: indeed, Kant defines the categories as the concepts which bring about, so as to constitute, the relation of representations in intuition to an object, as one which obtains in an object, and not merely in the subject. The categories do so in representing the order in which concepts are related in the use of a particular logical functions of judgment as necessary.

To see how this works, consider, in particular, the category of substance. On Kant's account this category is simply the concept which specifies that the empirical intuition of its object in experience "must always be considered as subject, and never as the mere predicate" when it is united using the categorical function of judgment. The logical function of categorical judgment of itself leaves the difference between judging, in respect of a given intuition, "The body is divisible" and "Something divisible is a body" as merely a matter of the subjective order of the concepts *body* and *divisible*. In bringing about this order in the concepts it does not purport to represent an objective order of the corresponding representations (representeds) which make up the content of the given intuition. The category of substance is precisely the concept which employs the order of concepts in the categorical function of judgment to give these corresponding representations in intuition cognitive significance, in making it stand for an object. It is because, on his conception of cognition, all cognitions consist, in respect of their form, simply in this

objective relation of our representations brought about through the categories, that Kant holds that the categories constitute the form of our cognition of an object.

Thus, the combination of representations in a cognition of an object is an instance of thought and employs the same logical functions of judgment which the combination of concepts in a judgment employs. Nonetheless, the form of our cognition of objects is not simply equivalent to the form of our thought in general: the unity of intuition thought in the categories is not the same as that of concepts in a judgment. It follows that the reflection in which cognition of an object consists represents, through the concepts of reflection, different rules than those which logical reflection represents. In this respect the latter differs from the former. Kant calls the reflection in which the cognition (i.e., cognizing of) an object consists, "transcendental reflection." Since transcendental reflection generates the form of our experience in representing manifolds of empirical intuition as having this form of the cognition of objects, all our cognition of objects essentially contains in transcendental reflection a consciousness of these forms.[10]

3) I turn next to Kant's account of how, through logical reflection, we engage in logic, a science which includes in its subject matter the form of our thought in general. (In the first critique, he entitles this science "general logic," because he has a similar conception of our science of the form of our cognition of objects and thus entitles the latter, insofar as it concerns the intellectual form of our cognition of objects, "transcendental logic.") We need to examine, in particular, the discussion of the methodology of logic with which Kant opens his *Logic*.[11] In it he claims that, in doing logic, we discover rules of the understanding a priori, by reflecting "solely on the use of the understanding in general":

> If, now, we set aside all cognition that we must borrow from *objects* and reflect solely on the use of the understanding in general, we discover those of its rules which are absolutely necessary, in every respect and regardless of any particular objects, because without them we would not think at all. Insight into these rules can be gained *a priori* and *independently of any experience*, because they contain, *without discrimination between objects*, merely the conditions of the use of the understanding in general, be it *pure* or *empirical*. From this it follows that the necessary and universal rules of thought in general can concern solely its *form* and not in any way its *matter*. Accordingly, the science containing these universal and necessary rules is a science of the mere form of our intellectual cognition or thinking … Now this science of the necessary laws of the understanding and reason in general, or – what is the same – of the mere form of thinking, we call logic (*Logic*, Introduction Section 1).

Before tackling the question of just how reflection allows us to discover the laws of logic, we do well to look at Kant's characterization of what is distinctive of these laws: namely, their being "absolutely necessary, in

every respect and regardless of any particular objects, because without them we would not think at all." It is crucial to see that the notion of necessity in question is normative, not descriptive. Thus, in calling the laws of logic necessary, Kant does not mean to imply that all our thinking must actually conform to these laws. That would leave no room for his claim (which he makes later in the same paragraph, in a passage cited shortly) that these laws are laws of how we *ought* to think. In this connection, it is helpful to keep in mind that critique consists in the analysis of our faculty of cognition. For this suggests that Kant's point is, rather, that we would have no faculty of thought at all, and so no representations which could count as thoughts, unless we were conscious of laws which govern our thought prior to and independently of any particular objects of thought.[12] On Kant's conception, logic concerns the *natural* operation of the understanding: it studies thinking insofar as it is spontaneous and thus, as an exercise of a faculty of "bringing representations forth from itself," accords with the nature of the faculty of thinking.

Notice that Kant does not identify the normatively necessary laws of logic with the forms of thought: rather these laws are rules which concern merely the form of thought.[13] Kant says merely that we discover these laws by setting aside the matter of our thought so as to isolate its form. I take his thought to be that it is constitutive of the form of our thought that the thought be represented as governed by inferential laws – most crucially and generally, by the law of non-contradiction. Kant is emphatic that this procedure is not one of comparing our particular thoughts and discerning what they all have in common. For, he holds, such a procedure would merely describe how we in fact think and thus could yield cognition only of contingent laws, and not normative necessary laws of logic that are implicitly represented, if not alas always followed, in our realizing, in our thinking, the various forms of our thought:

> Some logicians presuppose *psychological* principles in logic. But to bring such principles into logic is as absurd as taking morality from life. If we took the principles from psychology, i.e. from observations about our understanding, we would merely see *how* thinking occurs and *how* it *is* under manifold hindrances and conditions; this would therefore lead to the cognition of merely *contingent* laws. In logic, however, the question is not one of *contingent* but of *necessary* rules, not how we think, but how we ought to think. The rules of logic, therefore, must be taken not from the *contingent* but from the *necessary* use of the understanding, which one finds, without any psychology, in oneself. (*Logic*, Introduction Section 1)

In other words, because its rules are necessary and universal and thus must be cognized a priori, logic cannot, like psychology, be based on the introspection of our particular mental states.[14] For such observation can, at best, tell us what is the case, not what ought to be the case. It can yield only "empirical (psychological) principles of how the understanding thinks," not "a priori principles of how we ought to think" (ibid).

Nevertheless, Kant holds, we do "find" the rules of logic "in ourselves." As he puts it in a series of early (1773–5) *Reflections on Logic*, although we do not derive our cognition of the laws of logic "from psychology," we "nonetheless take up these rules from the form of thought" (R1627; AA16, 43); these laws are not "derived from" experience, but rather are "abstracted from" the "natural" and "empirical use" of the understanding.[15] So the key to his account is to his claim that, in general logic, we can abstract the forms of thought from their realization in our empirical use of the understanding, "set aside" the matter of thought and "reflect solely on" its logical form. For this is what puts us in a position to "take up these rules from the form of thought," and "gain insight into these rules a priori." But how do we isolate this form, if not by comparing particular instances and noting their similarities and differences?

The answer lies in Kant's doctrine that all our thoughts consists, in part, in a logical reflection which produces its form by representing its matter as related according to these forms. For, on his view, in thus giving a thought its logical form, logical reflection must distinguish the form and the matter of that thought. To see this, recall that the logical form of a thought consists in the determined relation of the representations making up its matter. And reflection gives representations this relation by representing them as having this relation through the concepts of reflection, which represent all the possible relations which representations can bear to one another in our consciousness. Since form and matter number among these concepts of reflection, it follows that, in order for the matter of a thought to have the determined relation constitutive of the logical form of a thought, its form must itself be represented in logical reflection. Indeed, since all the concepts of reflection in concerning the relation of representations in one consciousness concern the form of thought, reflection through any of the concepts of reflection presupposes reflection through those of form and matter. Thus Kant remarks in the Amphiboly; "Matter and Form – These two concepts underlie all other reflection, so inseparably are they bound up with all employment of the understanding" (A266/B323).

In short, Kant holds that the logical reflection which is an essential component of all our thought, including that in the "natural" and "empirical use" of our understanding, already distinguishes the logical form of our thought from its content. And, I propose, it is in virtue of this pretheoretic representation of the logical form of our thought that, on his account, we can abstract a priori from the matter of our thought and isolate the form of our thought, so as to be able to reflect solely on the laws of our thought in general implicit in these forms. This purely intellectual consciousness of the form of our thought is what Kant refers to as "this intellectual consciousness" when he says that "in logic" "we investigate ourselves" "according to that which intellectual consciousness gives us" (*Anthropology* §4*n*; AA7: 134*n*). And it is through this intellectual consciousness that we "take up" the laws of logic from "the form of thought."[16]

4) Let us turn now finally to Kant's account of the methodology and justification of transcendental philosophy. The role which he assigns logical reflection in his account of general logic suggests that he assigns a parallel role to transcendental reflection in his account of transcendental philosophy. Recall, in this connection, that in determining the relations between representations given in our intuition, transcendental reflection employs the logical functions of judgment (along with the categories, which, recall, are required to determine, for each logical function, the way in which that logical function is to be applied in uniting the manifold of intuition). Thus, just as logical reflection must distinguish the logical form of a thought from its matter in order to determine the logical relation which concepts bear to each other in a judgment, so too, transcendental reflection must distinguish the form and matter of our cognition of an object in order to determine the real relations which the representations making up the manifold of an intuition bear to each other in a cognition of an object. It would appear, then, that in transcendental philosophy, we abstract from the empirical content of our cognition and reflect solely on our pure thought of an object (in transcendental logic) and the applicability of pure intuition to objects (in transcendental aesthetic). We thereby isolate the form of our cognition of objects, and with it, certain (descriptively) necessary laws which obtain among all possible objects of our cognition (e.g., the principles of pure understanding) because they are constitutive of the form of our cognition of others. And, we are capable of isolating this form priori, so as to cognize universal and necessary laws governing all possible objects of our cognition, because all our cognition of objects, including that which constitutes our experience, has transcendental reflection as an essential component.

This reading finds considerable support in the *Critique of Pure Reason*'s characterization of transcendental logic. Kant implies, in introducing his conception of such a logic, that it is a science which requires a distinction between pure and empirical thought of objects which parallels the distinction between pure and empirical intuition:

> But since, as the Transcendental Aesthetic has shown, there are pure as well as empirical intuitions, a distinction might likewise be drawn between pure and empirical thought of objects. In that case we should have a logic in which we do not abstract from the entire content of cognition. This other logic, which should contain solely the rules of the pure thought of an object, would exclude only those cognitions which have empirical content. (B79/A55)

On Kant's view, in pure intuition the forms of intuition (space and time, as that within which the manifold of appearance can be ordered) are given in abstraction from the material, sensory element (the manifold of appearance). Because the forms of intuition thus constitute the formal conditions

under which objects can be given in our sensible intuition, in representing the form of intuition, pure intuition refers a priori to possible objects of our sensible intuition. The point of the parallel between pure intuition and the pure thought of objects is thus that our pure thought of objects abstracts from the empirical content of cognition to isolate the formal conditions which must be met by any possible object of our cognition, just as pure intuition abstracts from the matter of our intuition to isolate the formal conditions which must be met by possible objects of our sensible intuition. Transcendental logic, then, proceeds by reference to what is given in our pure thought of objects, i.e., in transcendental reflection, much as pure mathematics proceeds by reference to what is given in pure intuition.[17]

As we saw, this pure thought of an object, which belongs to the subject matter of transcendental logic, is what gives our intuitions the determined relation to an object in virtue of which they constitute cognitions of objects. Now recall that transcendental reflection represents and thereby constitutes the form of our cognition of an object, just as logical reflection represents and thereby constitutes the form of our thought. The intellectual part of this form thus is the pure thought of an object studied in transcendental logic.

Indeed, other passages in the first critique confirm that, in transcendental logic, we cognize the form of our cognition of objects a priori, by isolating the form which is given, as such, in the transcendental reflection which generates and constitutes the intellectual form of our cognition of objects. This parallels the *Logic*'s contention that general logic can cognizes a priori laws of our thought in general, because it proceeds by reference only to what is given in a logical reflection on the logical form of our thought in general. In the Postulates of Empirical Thought, Kant draws a link between the apriority and formality of transcendental philosophy which parallels that which we saw him draw in the *Logic* in the case of general logic:

> We can, indeed, prior to experience itself, cognize and characterize the possibility of things, merely by reference to the formal conditions under which in experience anything whatsoever is determined as object, and therefore can do so completely a priori (A224/B272; cf. A220/B267).

The cognition and characterization of the possibility of things belong, as we have seen, to transcendental philosophy, and are of the real possibility of phenomena, the objects of our experience. Since these objects are phenomena, their (real) possibility consists in the possibility of our experience, and this, in turn, consists in the form of our cognition of objects. Kant's claim is that in transcendental philosophy we cognize and characterize these formal conditions "completely a priori" because we do so "merely by reference to the formal conditions under which in experience anything

whatsoever is determined as object." That is, we do so by reference solely to what is given in transcendental reflection, a reflection in which we isolate the form of our cognition of objects by abstracting from any differences between the objects determined in our sensible intuition. On Kant's view, then, it is not enough that the information on which transcendental philosophy relies is in fact derivable from any possible human experience. He holds that it is an a priori science in a strict sense of "a priori," on which it is not in any way derived from experience.

There is, however, a crucial respect in which transcendental reflection differs from logical reflection. Because it concerns only the logical form of our thought, a form common to all our cognitions, logical reflection takes "no account whatsoever of the faculty of cognition to which given representations belong" (A262/B318). That is to say, it does not take account of whether they originate in our sensible intuition, insofar as we are affected by something real, or in the spontaneous activity of our understanding. Transcendental reflection, in contrast, "since it bears on the objects themselves, contains the ground of the possibility of objective comparison of representations with each other, and is therefore altogether different from" logical reflection (ibid). In other words, transcendental reflection distinguishes the origin of representations and thereby "contains the ground" of our objective judgments about phenomena. Indeed, that transcendental reflection concerns the origin of our representations was implicit in our earlier discussion of this kind of reflection: the matter of our cognition of objects consists in those representations which we receive passively, whereas the form of cognition of objects consists in those representations which, in reflection, we produce from ourselves; thus, in distinguishing the matter and form of our cognition of objects, transcendental reflection distinguishes those of our representations which we receive passively, from those which we produce spontaneously.

I propose, further, that on Kant's account transcendental reflection is a source of this cognition of the origin of our representations because, as we saw, in representing the combination of the manifold to effect its unification in one consciousness, reflection must represent its combin*ing* of these representations in one consciousness – that is, it must represent itself, as an act.

That transcendental reflection contains in this way a representation of the origin of our representations explains why it should be a source of the critique's characterization of our faculty of concepts, or understanding, as spontaneous and of our faculty of intuition as sensible, or passive.[18] It also illumines how, in the critique of pure reason, we are supposed to be able to give a deduction of the categories. Consider the opening of the Analytic of Concepts (the section in which Kant deduces the categories):

> By "analytic of concepts" I do not understand their analysis, or the procedure usual in philosophical investigations, that of dissecting the content of such concepts as may present

themselves, and so of rendering them more distinct; but the hitherto rarely attempted *dissection of the faculty of the understanding* itself, in order to investigate the possibility of concepts a priori by looking for them in the understanding alone, as their birthplace, and by analyzing the pure use of this faculty. This is the proper task of transcendental philosophy. (A65–6/B90)[19]

The task of looking for these a priori concepts "in the understanding alone, as their birthplace" is that of deducing the categories – that is, of tracing the birthplace of the categories to the "understanding alone," as against the senses, and thereby establishing their birthright as a priori cognitions of objects.[20] This task, then, requires not only isolating the contribution of the understanding to experience. It also requires representing this contribution as a contribution of our understanding. That transcendental critique's dissection of the understanding is carried out through transcendental reflection helps to explain how, on Kant's account, we are able to carry out this task a priori. Transcendental reflection, in representing this combination (the original-synthetic unity of apperception), not only originates the form of our cognition, but represents its originating of this form, and thereby represents the origin of the categories. Such is an initial, rough sketch of the way in which, through what is given in transcendental reflection, critique establishes the a priori origin of the categories and thereby their justification as a priori cognitions of all possible objects of experience.

Kant, then, does not conceive of his enterprise of critiquing pure reason as in any way empirical. Nor does he take this enterprise to be one of conceptual analysis, so that his account of the operations of our cognitive faculties is a dispensable and misleading idiom. Critique is, rather, an analysis of the activity of our understanding which produces the form of our cognition of objects, as it is given a priori and reflexively in that activity. Kant's account of his critique thus depends on his conception of our thought and our cognition of objects as consisting in different kinds of reflection – a conception articulated in this critique. Indeed, on his account, this conception of the natural operations of our understanding serves to explain how critique it itself possible.[21]

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NOTES

[1] Two exceptions are Klaus Reich *The Completeness of Kant's Table of Categories*, trans. Kneller and Losonsky (Stanford: Stanford University Press, 1992), originally published in 1932; and Eckart Förster, "Kant's Notion of Philosophy," in *The Monist*, 72(2) (1989), pp. 285–304). Both provide helpful accounts of the way in which Kant aims in the *Critique*

to deduce the categories from the nature of our thought of objects in general. Their concerns, however, are primarily with the systematicity and completeness of the critical philosophy. My focus will rather be on the logical status and justificatory basis of the most fundamental claims of the critique. The account I offer, which in large measure complements their analyses, is along the lines of that recently advanced by Dieter Henrich in his important article, "Kant's Notion of a Deduction," in *Kant's Transcendental Deductions*, ed. Förster (Stanford: Stanford University Press, 1989), pp. 29–46. However, my proposal differs from his in several respects. First, I find an account of the methodology and justification in critique in the *Critique of Pure Reason*, not in his lectures on logic. Second, I take Kant's distinction between logical and transcendental reflection to be pivotal to this account: Kant holds that the latter, not the former, is a source of the self-cognition of critique.

[2] "Kant's Philosophy of Mind," in *The Oxford Companion to the Mind*, ed. Richard Gregory (Oxford: Oxford University Press, 1987). Cf. his *Bounds of Sense*, (London: Methuen and Co., 1966). See also W. H. Walsh, *Kant's Criticism of Metaphysics* (Edinburgh University Press, 1975), p. 251 and Ralph C. Walker, *Kant* (London: Routledge & Kegan Paul, 1978), pp. 133–5.

[3] See for instance, Paul Guyer's characterization of Kant's claims about synthesis as describing "only general and conceptual truths about any representing or cognitive systems, human or otherwise, that work in time," in "Psychology and the Deduction," from *Kant's Transcendental Deductions*, ed. Förster (Stanford: Stanford University Press, 1989), p. 58. See, too, Strawson's "Reply to Guyer" in the same work.

[4] Derk Pereboom advances a reading of Kant's transcendental philosophy on which its claims are a priori in the sense that it depends only on information which is derivable from any possible human experience ("Kant on Justification in Transcendental Philosophy," *Synthese*, 85, (1990), pp. 25–54). Patricia Kitcher holds that transcendental philosophy relies on our experience to establish what cognitive faculties we in fact have and what cognitive tasks we in fact perform – in much the way that contemporary cognitive psychology does (20ff). Both authors are developing and extending Philip Kitcher's account of Kant's notion of the a priori (cf. "How Kant Almost Wrote 'Two Dogmas of Empiricism,'" *Philosophical Topics*, 12(2) (1981), pp. 217–49).

[5] Cf. A103ff. Indeed, Kant holds that this consciousness of the activity of one's thinking is essential to all thought; without it, we do not effect the combination of representations in one consciousness in which thought consists: thinking is an activity to which it is essential that one know what one is doing. I cannot examine his arguments for these claims here. But since it is highly contentious even to ascribe these claims to Kant, let me at least adduce some evidence that, through his mature work, Kant holds that we are conscious of the *activity* of thinking, and not merely of the combination or snythesis which is the effect of this activity. At A104, for instance, where Kant distinguishes explicitly between thought as the activity of combining and as the effect of this activity, he clearly implies that, sometimes at least, we are conscious of the former. He also speaks of the mind's "having before its eyes" its synthesizing activity (A107–8). And in the B-edition Deduction, Kant tells us that the synthesis of the human understanding, "if the synthesis be viewed by itself alone, is nothing but the unity of the act, of which, as an act, it is conscious to itself, even without [the aid of] sensibility" (B135). Moreover, he holds that "I represent to myself only the spontaneity of my thought, that is, the determining" (B158*n*). And in the *Anthropology* (1800) he describes pure apperception as a representation "with consciousness" of "the inner act (spontaneity) through which a *concept* (a thought) becomes possible, *reflection*" (§7; AA7, 134).

[6] It is ironic that Strawson and others find Kant's critique of rational psychology to compound the problem of inconsistency with which they charge his transcendental philosophy. For this critique of rational psychology turns precisely on dispelling the illusion that the self-cognition in which the critique consists is the kind of cognition which the boundary condition concerns.

[8] Consider, for instance, Arnauld's description of logic in the *Port Royal Logic*: "Logic consists in reflecting on these natural operations [conceiving, judging, reasoning, ordering] … We become better aware of the nature of the mind by reflecting on these operations," Dickhoff and James, trans., *The Art of Thinking* (Indianapolis: Bobbs-Merrill, 1964), pp. 29–30.

[8] Indeed, any science, on Kant's view, is a body of common cognition which reason has organized into a system, by ordering it under principles: "… the systematic unity is that unity which first makes common cognition into a science, that is, makes out of a bare aggregate of the same a system" (A832/B860). Thus it is essential to Kant's conception of transcendental philosophy as a science that critique organizes our common transcendental cognitions into a system. Moreover, Kant holds that the highest principle under which critique orders these cognitions is the principle of the synthetic unity of appreciation: roughly, the principle that all combination of representations in one consciousness must be brought about by an act of synthesis, of thinking of them all as belonging to the same consciousness. Here, then, is a first approximation of the way in which pure reason produces the scientific body of self-cognition which is the aim of its self-critique: through theoretical reflection on the operations of the understanding which generate the form of our cognition of objects, we heighten our pre-theoretic awareness of the rules which constitute this form and order these rules into a system under the principle of the synthetic unity of apperception. For detailed discussions of this systematizing aspect of transcendental philosophy, see Reich, *The Completeness of Kant's Table of Categories* and Förster ("Kant's Notion of Philosophy").

[9] Cf. also *Prolegomena*, §13, Remark 2: "the understanding does not intuit, but only reflects."

[10] This account of the relation between the logical functions of judgment and the categories, together with this account of transcendental reflection, helps explain what Kant means in claiming that we cognize the categories "in the absolute unity of apperception" (A402). The absolute unity of apperception is to be contrasted with the unity of apperception which obtains relative to the manifold of intuition characteristic of our intuition. Now, in the first instance, what we cognize in this unity are the logical functions of judgment. But, in cognizing these functions, we also cognize the categories – which are, after all, of themselves only concepts of that which renders determinate the use of these functions of judgments in uniting the manifold of a given intuition. As we will see, this point is confirmed by Kant's claim at B134*n* that the use of the synthetic unity of apperception in transcendental philosophy conforms to, so as to follow from, its use in logic.

[11] The *Logic* was compiled under Kant's supervision, by one of his students, Gottlob Benjamin Jäsche, and first published in 1800. (Jäsche was a lecturer in philosophy at the University of Königsberg at the time that he edited this work, and shortly thereafter was offered a professorship at the University of Dorpat.) Jäsche used his notes from one of Kant's lecture courses on logic (likely given sometime in the 1780s) and Kant's Reflections on Logic.

H. J. de Vleeschauwer *La Deduction transcendentale dans l'oeuvre de Kant*, vol. 1, p. 42 and Klaus Reich, *The Completeness of Kant's Table of Judgment*, p. 18 and pp. 117–20 have raised some questions about the reliability of the *Logic*. I am inclined to defend Jäsche's work – and Kant's care in supervising it – from these charges, but will not here, since they concern topics not presently relevant. Suffice it to say that no questions have been raised about the reliability of the texts on which I will be relying.

On the status of the *Logic*, see James Collins, "Kant's Logic as a Critical Aid," *Review of Metaphysics*, 30 (1977) and Robert Pippin, *Kant's Theory of Form*, (New Haven: Yale University Press, 1982), pp. 108–9. According to Collins, Kant specified that the *Logic* be based on his 1782 course, given in the year following the appearance of the first edition of the first critique (p. 443).

[12] That Kant embraces a conception of logic, and more generally of all a priori cognition, as thus rooted in the nature of our cognitive faculties is implicit in his employment of

biological analogies in his characterization of the genesis of our a priori cognition. For a helpful discussion of Kant's use of these analogies, see Zöller, "Kant on the Generation of Metaphysical Knowledge," *Kant: Analysen, Probleme, Kritik*, ed. Oberer and Seel (Wuerzburg: Koenighausen & Neumann, 1988), pp. 71–90. Kant's model of the "epigenesis of pure reason" sheds light on the sense in which a priori cognition, on his view, is not only independent of experience for its genesis and justification, but cognition which springs from us (the subject of cognition, as such).

[13] This is an important point, because the necessity of our thought's conforming to the form of thought is descriptive, not normative: being essential to a thought, its form could not fail to be realized in it, so that it does not make sense to speak of the forms of thought as rules that *ought* to be followed in thinking.

[14] It is clear that the relevant difference between psychology's reliance on observation and logic's reliance on reflection is that the former, unlike the latter, derives principles from our introspection of *particular* mental states. Consider the *Anthropology*'s contrasting of logic and psychology:

> In psychology, we investigate ourselves according to our representations of inner sense; in logic, however, according to that which intellectual consciousness gives us. (§4*n*; AA7: 134*n*)

The context makes clear that "intellectual consciousness" is reflection. And, on Kant's view, inner sense is the faculty through which we have "inner experience" – empirical intuition of our temporally determined particular mental states. (Notice that Kant's conception of psychology is obviously much more introspectionist than ours.)

[15] R1602, R1607, R1612; AA16: 31f, 34, 36. The sense in which these laws are "abstracted from" the "natural" or "empirical use" is that of prescinding from the empirical employment, not one of deriving (say by induction) the laws from particular instances in which we put them to natural or empirical use.

The *Reflections on Logic* are private notes which Kant kept for his lectures on logic (which he gave at least once a year over the course of his 41-year teaching career). He kept those notes in his copy of the text he used, George Friedrich Meier's *Auszug aus der Vernunftlehre*. Questions could be raised about relying too heavily on these notes: Kant did not, after all, intend them for publication; and, since he kept them over an extended period, they evince some development in his thinking. Nonetheless, I take them to be quite reliable. For Kant's practice was to revise these notes constantly, and it is a measure of how much care he took in doing so, that, when he entrusted Jäsche with the task of preparing his lectures on logic for publication, he gave Jäsche his *Reflections on Logic* to work from.

[16] This reading also allows us to make sense of Kant's argument, at the outset of the *Logic*, for his claim that we are able to grasp the necessary rules governing our understanding a priori, because they "contain *without discrimination between objects*, merely the conditions of the use of the understanding in general." The implication is that, were these rules to concern the matter of our thought, and not merely its form, i.e., if they were to concern differences between the particular objects which make up the matter of our thought, grasping these rules would require discriminating between the particular objects which make up this matter. But, as we have seen, Kant holds that the only way in which we can grasp a priori rules which govern our thought is through an a priori consciousness of the form of our thought in general. Thus, if these rules were to discriminate between particular objects of our thought, we could not grasp them a priori. And since, on his view, no rule could be an a priori rule of our thought unless we could grasp it a priori, Kant then infers that "the necessary and universal," i.e., a priori, "rules of thought in general can concern solely its *form* and not in any way its *matter*."

[17] To be sure there are important disanalogies. First, whereas mathematics proceeds by reference to what is given in pure intuition in the construction through which we make our

mathematical concepts, transcendental philosophy proceeds by analyzing the content of a synthetic unity of our intuition which is given a priori (B134) and which constitutes the form of our experience. Second, whereas mathematics proceeds by exhibiting its concepts *in concreto* in intuition, philosophy proceeds entirely discursively – a contrast which Kant develops in detail in the Discipline of Pure Reason.

That transcendental philosophy depends on our separating the form and matter of our cognition of objects is also supported by Kant's remark at the outset of the Introduction that, if, in experience, our faculty of cognition" (i.e., the understanding) "supplies from itself" any addition to our sense impressions, "it may be that we are not in a position to distinguish it from the raw material until with long practice of attention we have become skilled in separating it" (B1–2).

[18] In the *Logic* Kant calls this characterization of our faculties metaphysical, as opposed to merely logical, precisely because it concerns the way in which our faculties originate our concepts and intuitions (Introduction section V).

[19] This analysis of the understanding is part of the critique of pure reason, because Kant takes the understanding, insofar as it is a source of principles of a priori cognition of objects (the categories and the principles of pure understanding), to make up the faculty of pure reason (cf. A10/B24f).

[20] For a helpful account of this conception of a deduction, see Dieter Henrich's "Kant's Notion of a Deduction."

[21] I thank Torin Alter, Robert Adams, Tyler Burge, Philip Clark, Eckart Förster, Dan Guevara, Frank Menetrez, Marleen Rozemond, and Carol Voeller for helpful discussions.