Our use of logic has never been given a proper justification. Contemporary analytic philosophy has failed in its attempts to avoid problems regarding epistemic justification, when it turned its attention to issues of language and logic. Kant's methodological criticism, combined with a heavily reconstructed version of his transcendental idealism, provide the only possible coherent explanation of how our possession of valid inference forms is possible.
# TABLE OF CONTENTS

## EXPOSITION OF THE ISSUES

- Introduction .................................................. 1
- The "Middle Course" ........................................ 5
  - What I Mean by the Middle Course ....................... 7
  - Form to Form Correspondence ............................. 7
  - Abstraction From Origins ................................ 11
- The Middle Course's Coherence With the Synthetic Unity of Apperception .................................................. 12
- Disarming Allison's Argument Against the "Neglected Alternative" .................................................. 13
- Dogmatism, Skepticism, Criticism ........................ 17
  - Middle Course's Consistency With Critical Doctrine .................................................. 21
- Dogmatism and Skepticism .................................... 22
- Dogmatism and Skepticism Regarding Logic ................ 23
- Dogmatism in Contemporary Logic ........................... 24
- Skepticism in Contemporary Logic ........................... 27
- COPERNICAN JUSTIFICATION OF LOGIC ...................... 29
  - Re-thinking an Error Thesis ............................... 33
  - Reconstructing Kant's Copernican Revolution .......... 38
  - The Existence and Causality of Transcendental Objects .................................................. 39
  - Conclusion ................................................ 43
Table of Contents--Continued

NOTES ............................................................. 46

BIBLIOGRAPHY .................................................. 48
EXPOSITION OF THE ISSUES

Introduction

I find myself alarmed about *dogmatic* assertions in contemporary analytic philosophy, particularly regarding the "truths" of classical formal logic, analytic philosophy's crown jewel. In one sense, of course, they are not truths at all, when truth is meant as *correspondence* between some entities, ideas, propositions, sentences, on one hand, and states of affairs, or features of reality on the other hand. Yet as *formal* "truths" they seem to be necessary pre-conditions for the very possibility of truth as correspondence, for a proposition to be capable of bearing a truth value, it must have proper logical form.

My concern is *not* over this distinction between formal truth and truth as correspondence. I think this distinction both useful and mostly correct. My concern about the "truths" of formal logic is not really about their truth at all. I'm concerned with our *justification* for their truth. Do we have *implicit* justification which we can make *explicit* through analysis? Or perhaps there simply is no justification to be had here at all.

But how could I possibly be skeptical about truths of logic? It seems that to do so would not only cut me off from the philosophical community at large, but would sever me from any *reasoning* at all for both the skeptical challenge, and any possible answers to it. Even now, when current analytic philosophers such as Bonjour (1985),
Haack (1993), and McGrew (1995) are returning to a very serious interest in traditional problems in epistemology, some think a skepticism about certain a priori truths, such as logical truths, cannot be meaningfully entertained. Bonjour stakes out this position in his "Appendix A." And McGrew has said as much to me in conversations.

I acknowledge that I cannot reason to a skeptical position regarding logic without appealing to: (a) the meanings of the logical connectives, and (b) the validity of inference forms. But I have no interest in undermining classical logic. On the contrary, I don't doubt the validity of inference rules, such as modus ponens. I don't doubt the "truth" of classical logic for the most part. What I do doubt is that philosophers have provided any explicit epistemic justification for their "truth," their truth-bearing, or truth-preserving character. I maintain that it is still meaningful to accept the truth of classical logic, while asking how knowledge of classical logic is possible. If our working definition of knowledge is justified true belief, as many philosophers hold, then I can assume that the truth-condition is satisfied, while formulating a skeptical challenge regarding whether or not the justification condition is satisfied.

Within formal logic we can, by rigorous method, determine on what assumptions, if any, the truth on which a well-formed formula depends. Now I ask, on what assumptions, if any, does our holding classical logic "true" rest? And if it turns out that the truth of classical logic rests on assumptions, what could be our justification, epistemic or otherwise, for holding these assumptions?

It seems to me that there are three possible outcomes of such an inquiry:
1. We can provide full epistemic justification for the truth of classical logic.

2. All our philosophizing/reasoning rests on the mere assumption of the truth of classical logic; that is (1) above is unactualizable.

3. All our philosophizing/reasoning rests on the mere assumption of the truth of classical logic, but we can provide non-epistemic justification for holding this assumption.

I believe that all attempts to realize (1) are viciously circular. I would have to presuppose the truth-preserving character of valid inference forms in its very formulation, thereby begging the same truth that is in question. Susan Haack delineates this position clearly.²

This leaves us with only two alternatives. The second would seem to leave us shipwrecked on the internal side of Carnap's internal/external distinction. But I do believe that we can provide rational, non-epistemic justification, a Kantian "practical reason," for assuming the truth of classical logic. Further, I don't believe this takes us beyond the internal bounds of Carnap's meaning barrier. Nor do I believe that it is viciously circular, though it is non-viciously circular, for the formulation of the justification does depend on the very meaning of the logical connectives and the truth-preserving character of valid inference forms.

But why should we be interested in Kant in this context? What is the "middle course"? Why is it promising for seeing into the issues sketched above? I will provide the answers to these questions in the remainder of this exposition. For a preliminary clue as to why Kant, it is because of his radical concern for critical philosophy, that is
to pass beyond *dogmatism* and to answer *skepticism* about reason. His methodology acquires, through analysis, an understanding of *how* knowledge acquired through reasoning, i.e., through valid inferences, is possible.

Already we see that Kant was concerned with a *justification* for reasoning that would secure it against skepticism. Though Kant took the truths of "general logic" for granted, I think his very account of them as laws of our thinking demands a justification for them as well. This essay is an attempt to force Kant's critical concern to the realm of general logic itself, an experiment to see if we can provide justification for general logic.

Of course the "general logic" that appears in Kant's philosophy is not strictly equivalent to the classical logic of contemporary analytic philosophy. Regarding clarity and delineation of form, classical logic is one of analytic philosophy's genuine achievements. But I don't think that classical logic is any real threat to Kant's view in the *Critique of Pure Reason*. I don't see any reason, in principle, why classical logic could not be substituted for general logic in the critique, without subverting the force of his arguments, although this would be an enormous and difficult task.

Yet when we shift perspectives, and ask about the *ontological* status of "truths" of formal logic, I think Kant has a decided advantage. For, as laws of thinking in general, we begin to see how our epistemic access to these laws is possible. Whereas, if we take Frege's view, for example, that they are mind-independent entities, it is a complete mystery as to how we should have any epistemic access to them at all. This essay is an experiment against this very dogmatism regarding logic and reason.
The "Middle Course"

In his Transcendental Deduction, Kant says "there are only two ways in which we can account for a necessary agreement of experience with the concepts of its objects: either experience makes the concepts possible or the concepts make experience possible."\(^3\) B166 Kant makes the same point just before the deduction proper begins:

> There are only two possible ways in which synthetic representations and their objects can establish connection, obtain necessary relation to one another and, as it were, meet one another. Either the object alone must make the representation possible, or the representation alone must make the object possible. In the former case, this relation is only empirical, and representation is never possible a priori.\(^4\) B124,5

In this passage Kant draws our attention to the synthetic character of experience, whereby we add concepts which become predicates. These added concepts about objects are therefore grounded a posteriori. These added predicates only tell us how an object was at the particular times they were added. In contemporary terminology, they are (implicitly) time-indexed. Therefore, since the grounds for judging that the object in question falls under the concepts of these predicates are implicitly time-indexed, we cannot ground necessary judgments about the object under these concepts, for necessity entails at all times, not merely those particular indexed-time.

Kant strengthens his position by developing his theory of the synthetic unity of apperception in the Transcendental deduction. This theory "proves" that certain a priori concepts, namely the Categories, are necessary for any experience of objects at all. This is just what Kant means by the Transcendental Deduction of the Categories.\(^5\)

It is important to note that even a posteriori empirical knowledge, as synthesis,
is itself only possible given Kant's "Copernican" hypothesis regarding the Categories. The very empirical synthesis which is essential to the first hypothesis is only possible given the second hypothesis.

But in the last paragraphs of the second edition version of the deduction, Kant acknowledges, as an afterthought, a third hypothesis:

A middle course may be proposed between the two above mentioned, namely, that the categories are neither self-thought first principles a priori of our knowledge nor derived from experience, but subjective dispositions of thought implanted in us from the first moment of our existence, and so ordered by our Creator that their employment is in complete harmony with the laws of nature in accordance with which experience proceeds - a kind of preformation-system of pure reason. B167

We have been under the impression that there were only two hypotheses to consider, when Kant himself suggests a third. Oddly enough, I'm not interested in the middle course hypothesis as Kant formulates it. The hypothesis that I find important is this: that the Categories are both forms of our possible experience of objects and determinations (forms) of things in themselves. Henceforth, I shall use "middle course" for my formulation.

My formulation of the middle course bears a striking similarity to what has become known as the neglected alternative charge regarding the forms of sensible intuition, i.e., time and space. There is a long-standing criticism of Kant, that he failed to notice a third hypothesis in the Transcendental Aesthetic as well; that time and space are both forms of things as they are in themselves and forms of our sensible intuition of objects.
What I Mean by the Middle Course

I'm not sure what Kant meant in his version. He only devotes one paragraph to it. Regardless, my version suggests itself by the context of the issues in the Transcendental Deduction.

Form to Form Correspondence

With respect to the Categories, the first hypothesis (the one Kant follows Hume in rejecting) is that they are features of objects as they are in themselves, and that we learn them through experience.

The second hypothesis (Kant's hypothesis) regarding the categories, says they make experience possible. Objects in themselves (transcendental objects) affect our faculty of receptivity (sensible intuition). The "matter" made available through receptivity is interpreted by the faculty of spontaneity (faculty of understanding) by virtue of the Categories. That is, we provide the categorical form to the objects as we experience them (phenomena). In this way the Categories provide us with a transcendental logic, which delineates a synthetically logical range of possible experience. It provides us a priori with the formal characteristics of possible experience.

Now let's examine the truth-conditions (independent of our justification for holding whether these conditions obtain) of the two hypotheses above. In the first hypothesis, if the Categories are true, it is in virtue of their correspondence to things-in-themselves, that is between our concepts of the Categories, and their instantiation by
things-in-themselves.

In the second hypothesis (Kant's hypothesis), the Categories are [pure] concepts, and they are *formally* true, in virtue of their spontaneous act of providing the form for the matter acquired through the faculty of receptivity.

Here we find a neat parallel between general logic and the transcendental logic which is a function of the Categories. General logic merely provides us with conditions for *formal* truth, that is that propositions obey logical form. Any proposition that violates these formal principles, for example, the principle of non-contradiction, cannot bear truth as correspondence:

Whatever contradicts these rules is false. For the understanding would therefore be made to contradict its own general rules of thought, and so contradict itself. These criteria, however, concern only the logical form of truth, that is of thought in general; and in so far they are quite correct, but not by themselves sufficient. For though our knowledge may be in complete accordance with logical demands, that is, may not contradict itself, it is still possible that it may be in contradiction with its object.*

In other words *formal* truth is a necessary pre-condition for a proposition to *have* a true value. Wittgenstein recognizes this in the Tractatus period, and calls these propositions that can picture the world, *significant* propositions. In the predicate calculus, all well-formed formulas, from which no contradiction can be derived, which rests in turn on *some* assumptions, from which no contradiction can be derived, are significant propositions. Note that if a well-formed formula is a theorem, that is, it is derivable on *no* assumptions, it would be *formally true*, but could not bear truth as *correspondence*; it could not "picture the world." Significant propositions are just logical possibilities.
For Kant, general logic provides us with mere logical possibilities (what we can meaningfully think). Transcendental logic provides us with the formal possibilities of our experience of objects.

Now we can move toward a formulation of a middle course as a third hypothesis. Given that the truth conditions of the first two hypothesis are respectively:

1. Correspondence between our concepts of the Categories and their instantiation by things-in-themselves.

2. Formal truth of categories as transcendental logical preconditions for experience of objects as categorical.

This may suggest that the middle course would consist of simply holding (1) and (2). But I think there is something very strange, if not altogether incoherent about (1). For the Categories as features of objects in themselves are general features. If they are general features of objects-in-themselves, this just means that they are features of all objects-in-themselves. This cannot be a contingent fact, for then it would really be possible that some objects could fail to instantiate categorical form, which contradicts their general character. As truth of correspondence, this relation between Categories and things-in-themselves is incoherent.

But as formally true of things-in-themselves, I don't believe it remains incoherent. We can think of the Categories as Platonic laws that formally determine things as they are in-themselves, that is determine their very possibility as things-in-themselves. This does not seem self-contradictory at all. In this way, the Categories as Platonic laws, determine the possibility of things-in-themselves just as the Categories,
as our pure a priori concepts of objects in general determine our possible experience of objects.

Now this is essentially my version of the middle course. It is essentially a correspondence between the necessary form of our experience of objects, and the necessary form of objects as they are in-themselves, hence a form to form correspondence, which provides for the formal truth of the Categories regarding things-in-themselves.

We have completed our task of forming our middle course hypothesis. It bears a close similarity to the "neglected alternative" charge against Kant's conclusion in the Transcendental Aesthetic, namely that he failed to consider time and space as both forms of experience and forms of things-in-themselves.

But the relation is much stronger than mere similarity. The middle course hypothesis entails the "neglected alternative," for the Categories, as pure a priori concepts, are merely the outcome of combining (conceptual synthesis) the functions (concepts) of general logic with the functions (concepts) of formal intuition (time and space). Therefore, the Categories as pure concepts already contain the functions (concepts) of time and space within them, that is intentionally.

There is another version of the middle course, where the Categories are not identical to the necessary forms of things-in-themselves (as well as the formal conditions for possible experience), but are analogous to necessary forms of things-in-themselves. One could also hypothesize that only the forms of intuition (time and space) are analogous to necessary forms of things-in-themselves, while maintaining the
transcendental identity of the Categories. But of course the analogy of Categories to necessary forms of things in themselves entails minimally that time and space are at least analogous, if not identical, to necessary forms of things-in-themselves. Sellars holds this view in his *Science and Metaphysics* (1967):

> If the notion of one family of characteristics being *analogous* to another family of characteristics is obscure and difficult it is nevertheless as essential to the philosophy of science as it has been to theology and it would seem more fruitful. That it is a powerful tool for resolving perennial problems in epistemology and metaphysics is a central theme of this book.⁹

I find this version of the middle course attractive. But through the rest of this thesis, I will formulate my arguments in terms of the first version, largely because it will be simpler to do so. But the reader should nonetheless be aware of the analogous version of the middle course.

**Abstraction From Origins**

In the middle course that Kant mentions, God is the alleged originator of the "preformation-system of pure reason." But we should abstract our hypotheses from explanations of origins and examine their initial plausibility apart from their origins. Notice that Kant provides no explanation for the origin of the categories, beyond the functional synthesis of the rules of our thinking with the forms of intuition. Presumably, problems anticipated in the antinomies force, for critical reasons, the analysis to an abstraction from origin. But one could ask, why are time and space the forms of our intuition, and not some *other* forms? Why are we stuck with a mere *sensible* intuition rather than an *intellectual* intuition, to which he often refers?
I happen to hold evolution as it is in itself as the origin of the middle course. Nonetheless, I intend to examine the comparative plausibility of Kant's hypothesis and the middle course hypothesis apart from questions of origin.

**The Middle Course's Coherence With the Synthetic Unity of Apperception**

With respect to the three hypothesis before us, I have already mentioned how Kant shows that a necessary element of the first hypothesis, empirical synthesis, is only possible given the second hypothesis. Kant shows that empirical synthesis itself, including relatively unproblematic a posteriori synthesis, is only possible through the synthetic unity of apperception. This unity depends upon the function of our two faculties, intuition and understanding, applied together. On the one hand we have the formal concepts of time and space, on the other hand, the concepts of the functions of the understanding, in the table of judgements. These two functions combined simultaneously provide both the categories, and the synthetic unity of apperception which is necessary for our experience in general. I'm rather uncomfortable with the word "both" in the last sentence, because it suggests that the synthetic unity of apperception and the categories are two distinct products. They both refer to the same function. Perhaps it would be better to say that the categories are just a mode of presentation of the functions necessary for experience. This is precisely Kant's goal in the Transcendental Deduction; it is the "Copernican Revolution."

So the first hypothesis not only fails to account for the necessity of the categories, but further, the possibility of an essential element of the first hypothesis,
empirical synthesis, depends upon the second hypothesis.

But what about the middle course third hypothesis? Does it clash with Kant's theory of the synthetic unity of apperception, i.e. that the categories are necessary preconditions for experience of objects, and not the reverse?

I don't believe that it does. Rather it asserts Kant's hypothesis, and merely adds that the categories determine things as they are in-themselves. It does follow from this that the categories (functions) as present for us in our thinking, do correspond to formal determinations of things-in-themselves; that is they are true of them.

But I do not want to claim that merely because, ex hypothesi, this correspondence (truth) obtains, that we have knowledge of things-in-themselves. Mere truth is not sufficient for knowledge. The middle course hypothesis does not provide that we are justified in believing the categories true of things-in-themselves. As hypothesis, it merely requires that it is thinkable, i.e., not contradictory to do so. This is all that analysis requires. The upshot of this is that it is not inconsistent to hold that both: (a) with Kant, that the objects of our knowledge, that is objects of justified true beliefs, are not transcendental objects, but these same objects as phenomena; and (b) the categories correspond to (are true of) things-in-themselves.

Disarming Allison's Argument Against the "Neglected Alternative".

In his article The Non-Spatiality of Things-in-Themselves for Kant (1976), Allison informs us of a history of long-standing challenges to Kant, that he neglected to consider an alternative hypothesis in the Transcendental Aesthetic, namely that time and
space may be [necessary] forms of both things-in-themselves and empirical objects. My middle course hypothesis entails this, and adds that the categories also are forms both of things-in-themselves and possible experience. Allison examines several challenges, and provides answers to them. But I believe only one of his answers is applicable to the middle course:

... the claim that things considered as they are in themselves might possibly be spatial is manifestly incoherent. Properly construed, it reduces to the claim, or perhaps suggestion, that things-in-themselves, by which is meant things considered apart from all relations to the conditions of human sensibility, might still somehow be subject to these conditions. This is an obvious contradiction. The point is simply that one cannot consistently maintain both that space is a form of human sensibility and that it pertains to the nature of things as they are in themselves. One cannot do this because to consider things as they are in themselves (in the Kantian sense) means precisely to consider them apart from their relation to human sensibility, not on the claim and its a priori conditions.10

Before answering Allison's argument, I should point out that, as written, it only applies to space and time, that is to forms of sensible intuition. It does not apply to forms of understanding, i.e., the categories. Yet it would be easy to modify his argument to apply to the categories (and hence the middle course) as well. Simply change the meaning of "things considered as they are in themselves" to things considered apart from all subjective conditions of human experience of them. This would therefore include the categories as well, for their transcendental deduction shows they are subjective conditions necessary for experience of objects in general. This is consistent with Kant's doctrine of things-in-themselves in the critique.

Let's return to Allison's argument. For sake of clarity, let's continue to restrict our attention to space, realizing, of course, that the argument works for time as well,
and the categories as I have modified it. It seems that Allison's argument is question-begging. It demands that when we abstract from conditions of sensibility, which includes space (which the middle course grants), we abstract from all space period. But why should we be required to abstract from all space? If we recognize a perspective (in thought) of objects in general both as empirical objects, and as transcendental objects, why shouldn't we be allowed to consider space as the form of phenomena and as the form of things-in-themselves? What's good for the goose is good for the gander. In this case, when we abstract from space as a condition of sensibility, we have not abstracted from space as the form of things-in-themselves. This is just what the middle course requires with the word "both."

To this, it could be suggested that in the Transcendental Aesthetic, Kant's analysis showed that there is one space (our concept of space is not discursive). We know this one space a priori, which entails its merely phenomenal character. But of course, I'm not suggesting that space as the form of noumena is available to us in intuition. For this reason, this space is not present at all in Kant's analysis in the Transcendental Aesthetic. Therefore, Kant's analysis is only about the space of our experience, i.e., space as the form of empirical objects. It does not show anything about the existence/nonexistence of space as the form of things-in-themselves, for this space is not even considered in Kant's analysis. This is precisely what the "neglected alternative" charge asserts.

When Kant shows that phenomenal space is one space, does he mean "one" in the sense that all human subjectivity takes place in the numerically same space? This is
a difficult question, and since space is a form and not a thing, the ambiguity of the sense of "same-space" is perplexing. For forms are one-in-manys. Consider for example two roses of the same shade of red. Is there one red in two roses?

My interpretation of Kant's theory of space is that each individual human subject's sensibility has the same form, or same structure. So in a sense, there are as many "spaces" as there are human subjects. But these different spaces are identical in structure. Hence, a one-in-many, one structure in many subjects. This identity of structure guarantees that they map onto each other, or correspondence to each other, enabling us to talk about the "same" objects in space, to do the same geometry, and so on. The objectivity of space is explained through its a priori intersubjectivity.

To clarify, the form of space is a many-in-one. Forms are one-in-manys. Hence, one space (the structure of many-in-one) is in many subjects.

Now it is merely as hypothesis that I say space and time may also be a form of things-in-themselves. Perhaps the brain as it is in-itself has spatial and temporal structure. Then it doesn't seem to be much of a leap to think that this brain-in-itself, through its temporal processes, would produce temporal phenomena. As an organ (in-itself) providing for our faculty of representation, it represents noumenal space in empirical space. (Here we see room for the other version of the middle course, the room for analogy in the representation.)

It now becomes easy to show how we can abstract from subjective conditions of human sensibility and still have space left over. We merely abstract from the [phenomenal] space that is the structure of the representations which the brain in-itself
produces. This doesn't abstract from the spatiality of the brain in-itself.

**Dogmatism, Skepticism, Criticism**

Kant's "criticism" is an important theme for this thesis; we will later push criticism beneath pure reason to general logic/classical logic itself. What is Kant's "criticism?" It is essentially (to borrow Bonjour's phrase) to take *epistemic responsibility* for our knowledge claims arising through pure reason. To take epistemic responsibility for these claims means to be able to provide epistemic justification for them. The distinguishing mark of *epistemic justification* (as opposed to other types of justification) is *truth*. So here this means to show that our reasoning from pure concepts is truth-condusive.\(^{11}\)

Notice, of the two elements in pure reason, that is valid inferences, and pure concepts, Kant never challenges the former. The "quid juris" is posed only to the pure concepts, to determine from what sources they spring, and whether these sources are such that they provide the "right," or *justification* for our knowledge claims arising through them. It is *this* investigation which will provide the answer to Kant's leading question: how is knowledge through pure reason possible?

The first special problem with *pure* concepts is, since *pure* means *apart* from the very sensibility that is our only *source* of contact (faculty of receptivity) with objects, how can we be sure that there are any objects to which *pure* concepts apply? "Thoughts without content are empty, intuitions without concepts are blind."\(^{12}\)

Here we begin to see how Kant *looks* like a verificationist, when he requires that
our concepts/propositions from pure reason must have an intuited referent to be able to bear truth as correspondence. That these concepts/propositions are merely formally true (not contradictory) is not sufficient justification for truth as correspondence. For, as we see in general logic, formal truth is not sufficient for truth as correspondence; significant propositions are merely possibly true, they may be either true or false. Since our concern with the truth, as correspondence, of our pure thoughts/concepts depends on the objects to which they correspond, something must be provided by the faculty of receptivity:

To think an object and to know an object are thus by no means the same thing. Knowledge involves two factors: first, the concept, through which an object in general is thought (the category); and secondly, the intuition, through which it is given. For if no intuition could be given corresponding to the concept, the concept would still indeed be a thought, so far as its form is concerned, but would be without any object, and no knowledge of anything would be possible by means of it.\(^{13}\)

Often Kant says that those concepts arising from pure reason would be "without sense."

The German word "sinn" is ambiguous between sense as sensation, and sense as meaning. Here Kant plays both interpretations.

The second problem with concepts from pure reason regard their necessity. Since to acquire knowledge of objects is essentially synthesis, that is adding predicates to our concept of an object, how can the necessity of concepts from pure reason be grounded in an act of synthesis (synthetic judgment)? If we look to synthetic a posteriori knowledge as our paradigm, we find no grounds for necessity. As I said earlier, the grounds (experience) here for judging that our concept of an object falls under the concept of some predicate are implicitly time-indexed. Since necessity entails
at all times, not merely those particular indexed-times, a posteriori synthesis cannot ground necessary connection of subject and predicate.

We have characterized Kant's two special problems for pure reason:

1. In the absence of objects given through sensible intuition, how can any truth as correspondence between pure concepts and objects be grounded?

2. How can the necessity of pure concepts be grounded in an act of synthesis?

Kant's search for the solution to the first special problem provides him with his answer for the second as well. In search of the object to which pure knowledge would correspond, he looks back to the faculty of sensuous intuition. Though we are prevented, by the meaning of pure concepts, from deriving the matter for these concepts from this source, we are not prevented from employing the pure forms of this faculty, time and space. As forms, time and space give the conditions for the possibility of the matter of our concepts of objects. Hence, we can have a priori (pure) knowledge of the possibility of empirical objects.

This modal conception of the forms of intuition provides the answer to the second special problem, the necessity of knowledge from pure concepts. For now we are wholly in the realm of formal truth, having left "matter" (particular sensuous intuitions) behind. Valid inferences (the "reason" part of pure reason) are necessary inferences. And our pure concepts of time and space provide the necessary formal conditions for the possibility of empirical objects, just as in classical logic we can give the formal requirements for a formula to represent a significant proposition (that is, what is necessary for a proposition to possibly bear truth as correspondence).
Here I should warn the reader against a likely misunderstanding. Kant's path leading to the solution of pure reason's special problems was paved in terms of truth as correspondence, but we have really put this conception of truth aside in favor of formal truth. Kant does little to disambiguate (perhaps he himself was not always clear on the matter). For he often sounds as though we are still concerned with truth as correspondence when he talks of the "objects" of this correspondence with pure concepts as "objects of possible experiences." And he certainly retains this metaphorical use of truth (as correspondence) when his critical methodology requires us to restrict the legitimate domain of this correspondence to possible experience. Only here is the "quid juris" satisfied; only in this domain may we employ pure concepts with epistemic responsibility.

But this is misleading, for objects of merely possible and non-actual experience are not objects, just as Quine's "possible man in the doorway," is not a man, and the "possible-worlds" of quantified modal logic are not worlds (except in David Lewis' theory). To think that pure reason carries on autonomously and that we must look around for its proper domain is to misunderstand the nature of the ground or source of pure reason. Pure reason springs from the functions of thinking (general logic, table of judgements) applied to the concepts (functions) of time and space (that is possible intuition). Pure reason formally gives or generates the forms of empirical possibilities, in the same way that mere logic can provide us with logical possibilities. In both cases, the concepts/formulas provided are merely formally true, and as such they are necessarily formally true.
Middle Course's Consistency With Critical Doctrine

The middle course may seem to overstep the limits imposed by Kant's criticism regarding pure reason, when it asserts that time, space, and the categories are formal determinations of things-in-themselves. But it only asserts this hypothetically. All that is required for hypothesis is that it is thinkable, not that it is knowable. The middle course does not provide that we are/could be epistemically justified in claiming that the categories are true of (correspond to) formal determinations of things-in-themselves. Mere truth is insufficient for (and independent of) epistemic justification.

But Kant does have an argument that the categories (pure concepts) don't determine the formal possibilities of things-in-themselves:

(a) Time and space are only subjective conditions (forms) of the possibility of sensuous intuition.

(b) All our pure concepts of objects (categories) are functions of our concepts of time and space.

(c) Therefore, since pure concepts of objects depend upon the subjective conditions of possible intuition, they only determine the formal possibilities of empirical objects, not of things-in-themselves.

If this argument were sound, then Kant would be right that the categories don't determine things-in-themselves. But premise (a) is not an analytic truth; it is not contradictory, as I have shown, against Allison, earlier.

Kant's critical stance toward pure concepts, that is the categories, entails that a
priori knowledge of formal possibilities of objects is only possible for objects as possibly experienced. Now the middle course makes no claims whatsoever about knowledge, but merely makes (hypothetical) claims about truth as correspondence. As I have already stressed, truth is insufficient for knowledge. Therefore the middle course is not inconsistent with Kant's critical stance.

Yet Kant himself is inconsistent with his own critical doctrine when he concludes that time and space (and later, the categories) are only forms of possible experience of objects. Allison tells us that Kemp Smith held this position; "To know that things-in-themselves are not in space is, after all, to know something about them." Allison thought that Kant could deny the truth of the "neglected alternative" on analytic grounds, and therefore not violate his critical principles. But I have already shown otherwise. Kant cannot conclude (although he may hypothesize) that space, time, and the categories are not determinations of things-in-themselves. Rather his critical stance demands their hypothetical status as such.

**Dogmatism and Skepticism**

I shall not belabor a full-blown rehearsal of Kant's notion of the three stages of philosophizing: *dogmatism, skepticism, and criticism*. Now that his criticism has been fleshed out, it is easy to see the prior stages. Dogmatism simply carries on without an examination of the pure concepts from which it reasons. It proceeds in an epistemologically irresponsible manner. Dogmatism fails to ask how knowledge of the a priori concepts is possible. Skepticism poses the question, but remains without its
Skepticism is thus a resting place for human reason, where it can reflect upon its dogmatic wanderings, and make survey of the region in which it finds itself, so that for the future it may be able to choose its path with more certainty. But it is no dwelling-place for permanent settlement. Such can be obtained only through perfect certainty in our knowledge alike of the objects themselves and of the limits within which all our knowledge of objects is enclosed. 

As a stage on the way from dogmatism to criticism, skepticism is a necessary step. If Kant is not a methodical skeptic in the full Cartesian sense, he is at least a skeptic in his critical sense, always demanding for the legitimacy of pure concepts, demanding to know how knowledge of them is possible.

**Dogmatism and Skepticism Regarding Logic**

It is important to notice, as I said earlier, that Kant does not extend his critical method to the "reason" part of pure reason. He restricts criticism to the pure concepts from which pure reason reasons.

This critique is not opposed to the dogmatic procedure of reason in its pure knowledge, as science, for that must always be dogmatic, that is, yield strict proof from sure principles *a priori*. It is only opposed to dogmatism, that is, to the presumption that it is possible to make progress with pure knowledge, according to principles, from concepts alone (those that are philosophical), as reason, has long been in the habit of doing; and that it is possible to do this without having first investigated in what way and by what right reason has come into possession of these concepts.

I take Kant to mean that these procedures are only dogmatic because they are employed with, mixed up with, pure concepts whose source is not examined. The procedures themselves, abstracted from their employment with pure concepts, depend on sure a priori principles. But, contra Kant, I will push criticism to those very a priori
principles themselves; how is our knowledge of these pure concepts of these principles possible?

Dogmatism in Contemporary Logic

It is now widely held that one of contemporary analytic philosophy's distinguishing features is its turn away from epistemological issues to logic. Munitz expresses this view in his history (Contemporary Analytic Philosophy, Milton R. Munitz, 1981, MacMillan Publishing, p. 7)\textsuperscript{16} Kenny not only agrees on this point but credits Frege with initiating this turn.

... the most important of Frege's irreversible achievements ... was his separation of logic from psychology and epistemology. The Cartesian tradition had placed epistemology in the forefront of philosophy; the empirist tradition had confused the study of logic with an inquiry into human mental processes. Frege disentangled logic from psychology, and gave it the place in the forefront of philosophy which had hitherto been occupied by epistemology.\textsuperscript{19}

Of course a turning away from epistemological concerns entails a turning away from Kant's methodological criticism.

But Frege's separation of logic from psychology (at least as laws of thinking) is extremely dubious. It stems from his notion of the "public character" of logic, and its allegedly mind-independent status as truth. Whatever is formally true is necessarily true \textit{independently} of whether or not someone happens to (contingently) \textit{think} so. Hence Frege thinks that logical truths are mind-independent objects, and as such these objects are not products of psychology. Furthermore, human thinkers frequently make logical mistakes. How then could \textit{necessary} logical laws be laws of our thinking?
But none of this should be convincing for a work-hardened transcendental idealist. First note that Kant can account for the public character of logical truths through intersubjectivity. The logical table of judgements represent the laws of thinking for each subject. These rules, as forms, are instantiated in each and every human subject as their faculty of understanding. When we, qua philosophers, analyze the rules of our thinking, each one of us discovers the same rules. This is another one-in-many: one form (rules) in many subjects.

Further, that logical truths are necessarily true independent of whether or not human thinkers recognize them, does not entail that they are not rules of thinking. I grant that when we entertain a logical truth, we recognize that it is true regardless of whether or not anyone recognizes that it is true. But this is not inconsistent with Kant's conception of logic as rules of our thinking. For Kant, it is even possible in principle that no one should have done the strenuous philosophical work of uncovering these necessary rules of thinking; this in no way entails that there are no such rules. In this limited sense, the laws of logic are mind-independent (i.e., not necessarily explicit in consciousness) for Kant as well. Put differently, it is not inconsistent for logical laws to be laws of our thinking, and yet that we never become explicitly aware of this. Kant says in the introduction to his logic:

The exercise of our own powers also takes place according to certain rules, which we first follow without being conscious of them, until we gradually come to cognize them through experiments and long use of our powers, and finally make them so familiar to us that it costs us great effort to think them in abstraction. Thus, for example, general grammar is the form of a language as such. One also speaks, however, without knowing grammar, and he who speaks without knowing it actually does have a grammar and speaks according to rules,
even though he is not conscious of them.  

Frege's further contention, that logical truths are necessarily true, and that thinkers often employ invalid inference forms, hold contradictory premises, and so on provides a different challenge to the thesis that logic is the rules of thinking. But although Kant usually speaks of logic as the laws of thought, this formulation of the thesis is rather unfortunately misleading. For his genuine thesis is that the laws of logic are the laws according to which we recognize we should think.

In logic we do not want to know how the understanding is and thinks, and how it hitherto has proceeded in thinking, but how it ought to proceed in thinking. Logic shall teach us the right use of reason, i.e. the one that agrees with itself.  

Here Kant distances himself from the empiricist's psychological conception of logic. Kant does provide a rather unsatisfactory account of error, that it is the influence of the faculty of sensibility on the faculty of understanding. Nonetheless, as reformulated, Kant's thesis now avoids Frege's charge employing the discrepancy of the merely contingent employment by thinkers of proper logical form with the necessity of logical truth.

But for present purposes, even if we grant Frege that logical truths are mind-independent objects, we should ask the question, how is it possible that we should ever, or do, have knowledge of them? Frege never attempts to explain how it is we "grasp" these objects. Hence my concerns about dogmatism in analytic philosophy.

Of course later analytic philosophers turned to language and its use to study logic. But this does not seem in principle inconsistent with Kant. In one of the passages quoted above he speaks of the rules of grammar, and I have little doubt that Kant
thought that the rules of logic are reflected within the rules of grammar.

I've used Frege as an example of dogmatism regarding logic. This is not to take away from his enormous contribution of the propositional and predicate calculi. Also this has been a rather perfunctory analysis of Frege's positions. But my real purpose here is to push Kant's methodological criticism to its very limits with respect to transcendental idealism. That this is relevant to issues of current analytic philosophy I hope becomes more and more obvious.

Skepticism in Contemporary Logic

One might guess that I would choose Quine to represent skepticism regarding classical logic because of his now famous claim in Two Dogmas of Empiricism\textsuperscript{23} that even principles of logic may be revisable in the face of recalcitrant empirical evidence. But Quine is not my best choice, not only because "Two Dogmas" has taken quite a beating over the last several decades, but because his self-referentially incoherent mock-up of a kind of coherentist theory of justification bears little resemblance to the more traditional epistemological concerns driving Kant's methodological criticism. I need a skeptical challenge that can hold up under fire.

Susan Haack provides such a challenge in her paper, The Justification of Deduction\textsuperscript{24} She presents us with a dilemma. Inductive justification for the necessary truth preserving character of valid inferences is too weak, whereas deductive justification is viciously circular. She shows that any method of proving the validity of putatively valid inference forms either fails, or is viciously circular. For example, if we
appeal to definitions in terms of truth tables, we simply beg the question regarding truth. And if we abandon the semantic approach for the syntactic, she shows us how she can prove the intuitively unsatisfactory "modus morons"--from A implies B, and B, infer A. After examining many valiant attempts by other logicians to provide epistemic justification for the validity of inference forms, she leaves us without any plausible account of epistemic justification for deduction.
COPERNICAN JUSTIFICATION OF LOGIC

Although I have defended Kant's thesis that necessary logical truths express the rules of our thinking against Frege's rejection, Kant's view is not without some serious problems. But at least on Kant's account, we can begin to see how our epistemic access to logical truths is possible. On Frege's account, we have no clue as to how we "grasp" these mind-independent objects. In Kant's view, as the rules of our thinking, we have immediate access to them.

So it seems that we have epistemically privileged access to these rules. (They are not mediated by the faculty of sensibility.) Nonetheless, this access is mediated by concepts. All our representations, including our awareness of our own thinking, are made possible through the unity of apperception. All our representations are therefore necessarily conceptual, that is all our epistemic access, even of ourselves, is mediated by concepts. Therefore, if we know logic, as the rules of thinking, we know it through concepts, such as our concept of the principle of non-contradiction. Since these concepts of logic do no depend on sensuous experience, they are pure concepts. Just as the pure concepts of objects in general (categories) demand a "deduction," i.e. an examination into their source and legitimacy, so do pure concepts of our thinking in general (general logic). Pure concepts always demand a "deduction" according to Kant's critical principle. Our leading question becomes, how is knowledge of logic, as rules of our thinking, possible?
Kant, himself, never asked this question, hence he himself was here unwittingly dogmatic. Furthermore, he should have had a clue to the problem. For he situated logic in the faculty of understanding, i.e., the faculty of spontaneity. As rules of our thinking, then logic would be "subjective conditions of thought." As such, they would pose the same problem that the categories do: "how subjective conditions of thought can have objective validity..."\textsuperscript{25}

Though Kant failed to see this problem with logic, he provides a clue for its solution in the way he solves the parallel problem with the pure concepts of objects in general (categories). Rather than asking how it is possible for us to acquire pure concepts of logic, let's turn the problem around and hypothesize that these concepts make their "object," that is (correct) thinking, possible.

Taking the Copernican turn will save us a lot of pain. For I assure you, there is no hope of accounting for our knowledge of logic on the first model, where we acquire our concepts of these rules from our thinking. Since our thinking takes place in time, and all our access to our thinking is to this actual temporal history of (particular) individual thoughts, our general (discursive) concept of their rules (abstracted from particular instances) would be based on an inductive generalization from particular instances. Even if we paid very close attention, and ruled out those inference that were verified as false by empirical evidence, we could never, by this induction, provide sufficient evidence for the necessity of logical laws. Susan Haack puts it nicely:

...since a valid schema has infinitely many instances, if a valid schema were to be proven on the basis of the validity of its instances, the justification of the schema would have to be inductive, and would in consequence inevitably fail to establish
a result of the desired strength.\textsuperscript{26}

Now let's take the Copernican twist and examine the hypothesis that these pure concepts of logic make (correct) thinking possible. Perhaps it will be easier to keep with valid inference forms; how do these pure concepts make our knowledge of valid inference forms possible?

The clue lies in the mysterious relation of formal truth to truth as correspondence. Why is it that a proposition must have proper logical form in order to be capable of bearing truth or falsity as \textit{correspondence} to features, or states of affairs in the world?

In Kant's account (\textit{formal} idealism), the world as represented is schematized, that is, \textit{as} present for us, it is in conceptual \textit{form}. It is only because it is in conceptual form that propositions (which are in conceptual form, or rather \textit{express} this form) can be related, as \textit{correspondence} (truth/falsity) to features, or states of affairs, in the world. That is, for us to be able to judge (determine) that a proposition is true/false, we must be able to attempt to see whether or not the features of the world fall under the concepts in the proposition. The two distinct things compared, i.e. an object, or state of affairs on one hand, and a concept, or proposition on the other, must have homogeneous form for there to be any \textit{positive} relation between them. I cannot judge that the proposition "this rose is red" is true, unless I can subsume my \textit{experience} of this rose under the concepts "rose" and "red." Only concepts fall under concepts. "If this condition of judgement (the schema) is lacking, all subsumption becomes impossible. For in that case nothing is given that could be subsumed under the concept."\textsuperscript{27}
Now we can begin to see how the validity (necessary truth) of inference forms can be accounted for on this Copernican hypothesis. Just as the categories are necessarily true of objects of experience, because they determine these objects as empirical objects (that is they provide the representational form), so do the principles of logic, as functions (forms) of possible thought (table of judgements) determine the form of the world of empirical objects.

In this way we account for the necessity of logic. The valid inference forms are necessarily (formally) true because they provide the (logical) form for both thoughts and possible experience. This explains logical modality, for nothing that violates proper logical form, such as the principle of non-contradiction, can exist. To be possible entails logical possibility.

This Copernican twist regarding logic was already implied by Kant's deduction of the categories. Kant grounded the necessity of the categories in a synthesis of the functions of general logic (table of judgements) applied to the concepts (functions) of the possibility of sensible intuition (time and space). In this synthesis, which makes possible the synthetic unity of apperception, logic plays a major role. Here we also have our answer to how logic, as subjective conditions of thought, can have objective validity, answering concerns about the "psychologizing" of logic. And lastly, I believe it gives a justification, that is, a coherent account, of how our knowledge of the relation of formal truth to truth as correspondence, and of valid inference forms, is possible.
Re-thinking an Error Thesis

Though I have demonstrated how principles of logic, as "subjective conditions of thought," can have objective validity, there remains a problem. That we sometimes make logical errors in our thinking challenges the objective validity of these subjective conditions. For these subjective conditions, as rules of the understanding, may seem to allow logical errors, thereby voiding the necessity which is essential to objective validity. How do we account for logical errors in our thinking? That is, if the understanding provides the rules of thinking, how is it that these rules, as rules, are not always obeyed?

Kant's explanation, that logical error is the result of an unnoticed influence of the sensibility may work for explaining some confusions arising from subjective/objective observations. But it hardly explains employing straightforwardly invalid reasoning. Fortunately, there are other materials available in Kant's framework to account for error, namely the distinction between implicit and explicit, and the limits of our attention.

One source of possibility for logical error lies in the very process of analysis itself, by which we take what merely lies implicit in a concept and make it explicit. This process moves towards the definition of the concept analyzed. This process ideally ends with a set of concepts which are just those which together are necessary and sufficient for the concept defined.

This poses a special methodological problem for Kant. Except for those concepts which we explicitly construct, definitions are in-principle unattainable. Definitions are the result of making explicit what lies implicit in our understanding/use
of a concept. Since this act of analysis depends upon our ability to make explicit what lies implicit, which in turn rests on the limited scope of our finite attention, we can never be guaranteed that we have arrived at a definition. Even if it should seem that we have the set of concepts which are both necessary and sufficient for the concept to be defined; we can never be certain that we have not left something in the implicit realm. We don't have an absolutely privileged perspective which shows us in one view, the concept to be defined on one hand, and the necessary and sufficient concepts which lie murkily in the implicit realm, on the other hand.

For I can never be certain that the clear representation of a given concept, which as given may still be confused, has been completely effected, unless I know that it is adequate to its object. But since the concept of it may, as given, include many obscure representations, which we overlook in our analysis, although we are constantly making use of them in our application of the concept, the completeness of the analysis of my concept is always in doubt, and a multiplicity of suitable examples suffices only to make the completeness probable, never to make it apodeictically certain. Instead of the term, definition, I prefer to use the term, exposition, as being a more guarded term, which the critic can accept as being up to a certain point valid, though still entertaining doubts as to the completeness of the analysis.28

It is important to notice that not only are the pure concepts of an object in general, the categories, under this methodological constraint, undefinable in-principle; the pure concepts of the rules of our thinking (logic) are undefinable as well. Kant himself was explicit on this matter, "Logic, by the way, has not gained much in content since Aristotle's times and indeed it cannot, due to its nature. But it may well gain in exactness, definiteness, and distinctness."29 These last three terms are technical terms for Kant, having to do with analysis, the process of moving towards definitions of concepts. This process makes our implicit understanding of a concept explicit.
Now in this difference between what remains implicit despite analysis, and what becomes explicit, we begin to see an explanation for logical error. First, logic, as the rules of understanding lie implicit for us, until by an act of analysis, we bring these rules to our conscious attention. Before this analysis takes place, we should only have vague and obscure notions of valid inferences, providing plenty of room for error. Even after we derive the rules of the understanding by analyses (abstraction of valid inference forms from all material content) we can never be certain that we have a complete conception of these rules, though our chance of error is very greatly diminished.

Furthermore, our feelings and desires may implicitly (i.e., subconsciously) affect our judgements. Kant (in Kemp Smith's translation) uses "applied logic" to refer to the discipline which should give us practical advice regarding "the accidental subjective conditions which may hinder or help its [logics] application." Applied logic "treats of attention, its impediments and consequences, of the source of error," and so on. Presumably, in cases where our desires subconsciously thwart our applications of logic, we could, in-principle, make explicit the difference between what we should merely prefer (desire) to judge, from what the rules of our thinking sanction. Once again, the murky realm of the merely implicit is to blame.

So far, my search for a possible explanation for our logical errors which is not anomalous with Kant's thesis that logic is the rules of the understanding, has been a straightforward examination of issues on which Kant was more or less clear. From here on, however, my creative interpretation of Kant's views seem radical, and I hope original as well. What I want to distinguish next is between those judgements for which
I cannot hold myself epistemically responsible, and those judgement for which I can/should hold myself epistemically responsible.

First, let's approach what I mean by judgements for which I cannot hold myself epistemically responsible. Keep in mind that the synthetic unity of apperception is the spontaneous result of the understanding acting on the forms of intuition. But of course, we as conscious subjects, do not explicitly think this process into motion. It is not within the realm of our freedom to do so; hence we cannot be responsible for this process. Rather we, as conscious subjects, are the result of this spontaneity, which in one act poses our subjectivity against its (possible) objects of experience. Our daily experience of objects, involves untold numbers of implicit (subconscious) spontaneous judgements. In the simple act of gazing about the room a multitude of implicit judgements take place. "If we were conscious of all that we know, we would have to be amazed at the great number of our cognitions."31

What is important to see here, is that our spontaneous experience is a result of a multitude of synthetic judgements that we don't choose to make. We cannot hold ourselves epistemically responsible for them because these judgements are not made within our freedom, the only realm where we can hold ourselves responsible. This multitude of judgements takes place "automatically" according to the rules of the understanding.

In contrast to these judgements are those for with I can/should hold myself epistemically responsible. These judgements are those that I explicitly, that is consciously, make. Now we are in the realm of thinking. Kant describes the move into
this realm by saying, "It must be possible for the 'I think' to accompany all my representations." This means that I must be able to make the results of the implicit judgements which synthesize my experience (for which I am not epistemically responsible) explicit. In this move from the implicit to the explicit, I become epistemically responsible. Notice that Kant says only that it must be possible for the "I think" to accompany all my representations. He does not say that it is easy. The same kinds of impediments that hinder our transition from implicit to explicit in analysis of concepts hinder us here as well. Our explicit judgements are the result of analysis of our experience.

For example, my explicit (epistemically responsible) judgement that "this rose is red" does not add the concept "red" to "this rose". The addition (synthetic judgement) has already taken place spontaneously, implicitly, according to the rules of the understanding. All I do, when I make these judgements explicit, is to analyze what was spontaneously joined in my experience. Now I must hold myself epistemically responsible for any inferences which I should choose to make from this analysis of my experience. And since all of this thinking depends upon bringing what is implicit into the realm of the explicit, the usual impediments may hinder our success. Notice that these impediments arise at the very level at which we become epistemically responsible for our judgements; that is, where we become concerned with how we should think.

Now we can finally see how Kant can shift between saying that logic is the rules of the understanding on the one hand (table of judgements), and the rules of how we should think (as opposed to how we do think) on the other hand. For the rules by which
our understanding spontaneously provides (synthesizes) the form of our experience, are
the very same rules which we should follow in our thinking. It is just that once we have
entered the explicit realm of thinking, there are many possible impediments which could
thwart our epistemic responsibility. "Logic shall teach us the right use of the
understanding, i.e., the one that agrees with itself."  

Reconstructing Kant's Copernican Revolution

The thrust of this inquiry so far shows that in principle, we can at least
understand how our knowledge of logical truths is possible based on a Kantian
transcendental deduction of our pure concepts of logical principles. This means that we
show that the synthetic unity of apperception depends upon these concepts. This entails
that our concepts of logical principles make possible both our experience of objects in
general and our knowledge of necessarily valid inference forms. In this way, we explain
the truth-preserving character of putatively valid inference forms in a way that the
Fregean position can not. For if we consider valid inference forms as mind independent
objects, we cannot account for our knowledge of their necessarily validity.

That the Fregean position (that logical truths are mind independent objects) is
inherently incapable of providing any account of our knowledge of truths of logic is
demonstrated by Haack's argument about the justification of deduction. The semantic
approach to justification begs the question regarding the truth-preserving character of
valid inference forms by appealing to definitions in terms of truth-tables. The syntactic
approach could only leave us with a history of instances of putatively valid inferences,
which would only provide inductive evidence, evidence which is too weak to support the necessary validity of inference forms.

Notice that Haack's skeptical concerns defease Wittgenstein's "Tractatus" period stance as well. Wittgenstein at least provides an initial account of how we have epistemic access to logical truths; though language does not "say" them, it does "show" them. But this account cannot provide how we can know that a valid inference form is necessarily valid for all instances. We cannot induce this form from the particular instances that we find in language. No account of logical truths as mind-independent entities is coherent with our possible knowledge of them. The Copernican turn is the only way to coherently account for our knowledge of logical truths as necessary truths.

The Existence and Causality of Transcendental Objects

There is a long-standing criticism of Kant's transcendental idealism, that it is incoherent, for there is no way to conceptually present it, even as an hypothesis, which does not violate Kant's critical principles regarding the categories. For example, Kant cannot formulate transcendental idealism without saying, for example, that things-in-themselves cause our sensible representation of them, or that things-in-themselves exist.

Of course transcendental idealism regarding logical principles can only do philosophical work if it is coherent. By showing that the middle course is a plausible hypothesis (that the categories, and hence, time and space, can be forms determining both things-in-themselves and subjective conditions of experience) I have paved the way for a coherent reconstruction of transcendental idealism.
Kant must be able to say that transcendental objects exist. For Kant is not an idealist regarding these objects. What Kant "idealizes" is merely the form of their appearance, that is how they appear to us. For this reason, Kant says in the Prolegomena, that he should have called his view "formal idealism" or "critical idealism," to prevent conflating his view with idealism proper. In essence, Kant is a realist about things-in-themselves.

My idealism concerns not the existence of things (the doubting of which, however, constitutes idealism in the ordinary sense) since it never came into my head to doubt it, but it only concerns the sensuous representation of things, to which space and time essentially belong.

The problem is that there is no way to coherently conceptualize this realist aspect of transcendental idealism, once we accept Kant's critical stance regarding the categories. For all the concepts we need to maintain its realist character, such as "existence," "cause," and "reality" are critically restricted from any application to things-in-themselves.

Some philosophers, such as Allison (1983) and Baldner (1988) have tried to excuse Kant for saying that things-in-themselves cause our experience of them. Allison contends that "the function of the categories in these transcendental contexts is purely logical, and does not carry with it any assumptions about their objective reality with respect to some empirically inaccessible realm of being."

There are two problems with Allison's reading that the categories only have a "purely logical" function regarding things-in-themselves. First, it fails to do justice to the realist aspect that is essential to Kant's transcendental idealism. As used in some
merely logical sense, concepts such as "cause" and "existence" only grant things-in-themselves a merely non-contradictory status, they become merely logically possible. Their ontological status falls to mere "gedankendinge" (thought-objects) which have no objective reality beyond mere form of thought. On this account we cannot formulate transcendental idealism without stripping away its realism.

The second problem with Alison's solution is that it is inconsistent with Kant's deduction of the categories. The categories cannot be stripped down to some merely logical function. The categories essentially are the result of logical functions (table of judgements) being applied to the concepts of time and space. The categories, as pure concepts, contain the concepts of time and space as intensions. In Kant's logic, the intensions of concepts are what determines their extensions. Since things-in-themselves, on Kant's account, are not spatial or temporal, any application of the categories to them now becomes explicitly contradictory. Allison fails to recognize that the categories, as concepts, essentially include spatiality and temporality in their intensions, which is shown by Kant's deduction.

Fortunately, the source of contradiction in any application of the categories to things-in-themselves depends upon a mere hypothesis, i.e., that time and space are only formal determinations of our experience (subjective conditions) and not formal determinations of things-in-themselves. I have taken great pains to show the plausibility of the middle course hypothesis (and its analogous version) where time, space, and the categories are formal determinations of both our experience of objects and things-in-themselves. On this account, it is not contradictory to employ the categories to talk
about things-in-themselves.

Since I have earlier shown that Kant's claim that time and space are merely subjective conditions of experience is not (contra Allison) an analytic truth, this claim was reduced to a mere hypothesis. Since this hypothesis is inconsistent with the very conceptual formulation of transcendental idealism, due to critical restraints on the categories, we must reject this hypothesis in favor of the middle course. The middle course does not violate critical principles regarding the categories, for it does not claim we have *knowledge* through the categories of things-in-themselves. It only says that it is logically possible, i.e., not contradictory, to think that things-in-themselves may be spatially, temporally, and categorically determined.

Baldner's apology for Kant's use of "cause" in transcendental contexts, differs from Allison's, in that he does not strip the concept down to some merely logical employment. Rather, he says we must understand "cause" in these uses as an analogy: "Kant's point, instead, is merely that as the objects we are intentionally related to in experience, things-in-themselves are a necessary ground of the possibility of our experiences of them."36

Notice that in the quotation, though the word "cause" does not appear, two other pure concepts from the categories appear: "necessity" and "possibility." There simply is no way to properly characterize transcendental idealism without appealing to the categories. As far as regarding these uses of concepts from the categories as *analogies* in transcendental contexts, I can agree. For this is just what the analogous version of the middle course claims. I just want to point out that for these categorical
concepts (which essentially include \textit{spatiality} and \textit{temporality} in their intensions), to be \textit{analogous} to determinations of things-in-themselves requires that these things are determined by something \textit{like} (but not identical to) the forms of time and space.

That we cannot \textit{know} what these analogous formal determinations are does not render the analogy incoherent. We simply have no intuitive access to the forms of things as they are in themselves. Nonetheless the analogy is thinkable. Sellars claims that Kant actually believed that things-in-themselves were determined by relations that are analogous to temporal and spatial relations.

That Kant implicitly accepted some such view of things-in-themselves is, I think, clear. Yet if the fact had been brought to his attention he would most certainly have claimed that this transcendental use of analogy is \textit{empty}. The abstract concept of such space-like characteristics could have "cash value" only for God.\textsuperscript{37}

If Kant did hold this view, then he would minimally have to accept the analogous version of the middle course in order to avoid being self-referentially incoherent when formulating transcendental idealism in terms of concepts from the categories. In either version of the middle course, we can meaningfully say (but not know) that things-in-themselves \textit{cause} our experiences, that they are \textit{real}, and that they \textit{exist}.

Conclusion

My aim was to push Kant's critical methodology into support of the very principles of logic, within the framework of transcendental idealism. Kant himself was never skeptical about logic. But his doctrine that logic is the rules of our faculty of understanding demands critical support for logic. For by placing the source of logic
within the subjective conditions of our experience, Kant implicitly psychologized logic. This presents a problem. How can subjective conditions of thought have objective validity?

But Kant had already found a method of dealing with this very same question with regard to the categories. Indeed, the categories presuppose general logic, for the categories simply are the synthesis of functions of general logic with the concepts of time and space. Hence, as a necessary condition for the synthetic unity of apperception, this psychologized logic becomes a ground for the possibility of both our possible experience and our possession of valid inference forms.

Traditionally, psychologism regarding logic has been seen by philosophers as a threat to the validity of our putatively valid inference forms. Psychologism regarding logic seemed to threaten the very possibility of philosophy itself.

Nonetheless I have shown how, on Kant's account of logic, as the rules of the understanding (spontaneity), it is possible for us to have knowledge of these necessary truths. Furthermore, on the anti-psychologistic account, where logical truths are mind-independent, there is no possibility of accounting for our knowledge of logic, for there is no way we can provide sufficient epistemic justification for the necessary truth-preserving character of putatively valid inference forms.

But I have only psychologized logic as it is present for us. On my account, logic is not restricted to our subjective faculty of understanding. My whole strategy with the middle course hypothesis was to make intelligible the claim that formal determinations of things could be both determinations of things-in-themselves and subjective
determinations of our experience/thinking. It is only on this intelligibility that I can coherently reconstruct transcendental idealism. On my hypothesis, logic is both a determination of things-in-themselves, and it is a subjective condition which determines the possibility of our thinking.

Though I have shown how our knowledge of logic is possible, mere possibility does not entail actuality. Speculative reason can take us no further. But since all our planning, thinking, indeed the very sense of how to direct our freedom, depends upon logic, who would not hold (general or classical) logic to be largely true? To give up on logic would be like refraining from breathing because it is merely logically possible that the air is poisoned. There is sufficient practical reason to inhale it, despite this mere logical possibility. Likewise the demonstration of the possibility of our possession of logic is sufficient practical justification to hold its principles true. This non-epistemic justification for holding them is not viciously circular. Here it is rational to have faith.
NOTES


3. Kant (1787), B166.

4. ibid., B124,5.

5. For insight into Kant's use of this legal metaphor, see Henrich's essay in Kant's Transcendental Deductions (1989).

6. Kant (1787), B167.

7. Allison (1976) provides this history.

8. Kant (1787), B84.


12. Kant (1787), B75.

13. ibid., B146.


15. Kant (1787), B789.

16. ibid.


18. Kant (1787), BXXXV.


21. ibid., p. 16.

22. ibid., p. 59.


25. Kant (1787), B122.


27. Kant (1787), B304.


32. Kant (1787), B131-2.

33. I am indebted to my teacher, Kent Baldner, for this “adverbial” interpretation of transcendental idealism. He articulates this interpretation clearly in his articles from 1988 and 1990.


BIBLIOGRAPHY


