Revisiting Kant’s Epistemology: Skepticism, Apriority, and Psychologism

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I.

Immanuel Kant is probably the most important figure in the history of epistemology. Yet, his work is largely ignored by contemporary epistemologists. There is no mystery about why this has happened. According to current philosophical methodology and current readings of Kant, his key epistemological classifications were either badly mistaken or very confused.

As everyone knows, Kant framed his epistemological quest in terms of vindicating the possibility of synthetic a priori knowledge. Current epistemologists divide into roughly two camps, those who accept Quine’s dismissal of the distinction between the analytic and the synthetic, and those who believe that analyticity is still a useful philosophical notion. Both groups reject the synthetic a priori. Quineans regard the notion of apriority either as opaque or as inextricably linked with that of analyticity.1 Coming out of the same tradition of logical positivism, analytic philosophers agree with Quineans that the only serious source of a priori knowledge would be conceptual analysis. So they believe that Kant was confused in believing that a priori claims could be synthetic. Rather, insofar as they are philosophically defensible, the propositions he held to be synthetic a priori are disguisedly analytic.

Beyond the contrasts between analytic and synthetic propositions and a priori and a posteriori ones, Kant also appealed to a third epistemological classification: “transcendental” as contrasted with “empirical” knowledge. Although Kant scholars still write earnestly about “transcendental” philosophy, the majority of 20th century philosophers appear to have sympathized with Gilbert and Sullivan’s view of “transcendental”: “The meaning doesn’t matter, for it’s only idle chatter of a transcendental kind.”2

If “synthetic a priori” is an oxymoron and “transcendental” hopelessly ob-
scure, then Kantian epistemology seems doomed. My goal in this paper is to attempt a resurrection. I intend to argue that the current low opinion of Kant’s work results from a failure to understand his basic epistemological categories and hence his transcendental turn in epistemology. The crucial concept is his most original: “transcendental.” In the next section, I draw on some previous work of my own, plus an important new study by Deiter Henrich, to offer what I believe is clear and straightforward account of Kant’s transcendental method. Given their close connection, the interpretation of transcendental proof leads naturally to an equally clear understanding of Kant’s notion of \textit{a priori} knowledge.

Section 3 will illustrate Kant’s transcendental method, by showing how it can be used against various skeptical challenges. It will turn out, however, that his transcendental method is not just an effective means of combatting skepticism. It also leads to a new and enlightening model of the human epistemic situation. In section 4, I will defend the paper’s central and most surprising claim: Kant’s transcendental method and the epistemic model it incorporates offer a plausible way to establish synthetic \textit{a priori} propositions. Section 4 will also lay the groundwork for the argument of Section 5 that Kant’s model of epistemology can clarify the issue of the proper role of psychology in epistemology and so advance the contemporary debate about naturalizing epistemology.

Skepticism, apriority, and psychologism do not exhaust Kantian epistemology, but they are crucial to any evaluation of it. Kant took his distinctive contribution to be a new method for establishing synthetic \textit{a priori} propositions; early critiques of transcendental philosophy focussed on its apparent, but insufficiently explained and defended, reliance on psychology; and more recent interpreters have tried to salvage Kant’s reputation by presenting him as an opponent of skepticism. By arguing—against current opinion—that Kant’s use of psychology was completely appropriate, even for defending the possibility of \textit{a priori} knowledge, and that his anti-skeptical arguments were quite solid, I hope to show that revisiting his epistemology is worth the interpretive effort.

II.

Kant introduced the term “transcendental” to indicate the novelty of his philosophy. In several passages, he tried to explain exactly what transcendental knowledge involved. He also offered a very important clue to the proper understanding of this critical term. In a famous passage, he made an analogy between the transcendental deduction of the categories and what contemporary jurists called a “deduction” (A84/B116). These passages and this clue provide two firm anchors for interpreting Kant’s “transcendental” epistemology.

Norman Kemp Smith indexes three passages as providing definitions of “transcendental”, A11/B25, A296/B252, and A720/B748 and one as defining “transcendental deduction”, A86–87/B118–119. The second passage offers only a confusing contrast with the term “transcendent,” however, and the third a contrast with Kant’s unusual views about intuitive construction in mathematics. In
addition to the passages Kemp Smith regards as explications, I would list A56/B80–81, which is manifestly intended to clarify Kant’s use of “transcendental” knowledge, A64–66/B89–91, which introduces the Transcendental Analytic, and A783/B811, which describes the province of transcendental knowledge. This yields five crucial passages (in order of their appearance in the Critique; I indicate Kant’s original emphasis by the use of boldface type):

[1] I call all knowledge **transcendental** which is not concerned so much with objects, but with our **manner of knowing objects**, insofar as that should be possible **a priori** (A11/B25, amended translation.8)

[2] Not every kind of knowledge **a priori** should be called transcendental, but only that by which we know that—and how—certain representations (intuitions and concepts) can be employed or are possible purely **a priori**. The term “transcendental,” that is to say, signifies such knowledge as concerns the **a priori** possibility of knowledge, or its **a priori** employment. Neither space nor any **a priori** geometrical determination of it is a transcendental representation; **what can alone be called transcendental is the knowledge that these representations are not of empirical origin**...(A56/B80–81, amended translation)

[3] Transcendental analytic consists in the dissection of all our **a priori** knowledge into the elements that pure understanding by itself yields. In so doing, the following are the chief points of concern: (1) that **the concepts be pure** and not empirical; (2) that **they belong**, not to intuition and sensibility, but to thought and understanding…

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 **looking for them in the understanding alone, as their birthplace**, and by analysing the pure use of this faculty. **This is the proper task of transcendental philosophy**...(A64–66/B89–91).

[4] [An empirical deduction of a priori concepts is a labor entirely lost] therefore, a deduction of such concepts…must be transcendental.

…[Again] a **deduction** of the pure **a priori** concepts can never be obtained in this manner [empirically]…For in view of their subsequent employment,…they must be in a position to show a certificate of birth quite other than that of descent from experiences. (A86–87/B118–119).

[5] In **transcendental knowledge**, so long as we are concerned only with the concepts of the understanding9, **our guide is the possibility of experience**….The [transcendental] proof proceeds by showing that experience itself, and therefore the object of experience, would be impossible without a connection of this kind [between concepts]. A783/B811.

Despite the notorious obscurity of Kant’s prose, these passages make several clear points. In the first, Kant tells us that us that the focus of transcendental epistemology is not individual knowledge claims about objects, but the manner in which we are able to know objects at all. The second, third, and fourth seem particularly clear and consistent about another point: Transcendental epistemol-
ogy is concerned with the non-empirical origins of our mental representations of objects. The last phrase of the second passage says exactly that. Both the third and fourth passages refer to the "birthplace" of various concepts, which is just a metaphorical way of referring to origins. In the first paragraph of the third citation, Kant refers to certain concepts as "pure", meaning that they are not of empirical origin, and notes also that they belong to the understanding and not to sensibility. That is, their origin is not in experience nor in our own sensibility, but in the understanding itself, a point he repeats in the second paragraph: These concepts come from the understanding alone.

The last citation introduces the new point that transcendental knowledge concerns the possibility of experience. It makes the same point twice: Transcendental proofs proceed by considering the possibility of experience. Although I cite only one passage, which comes very late in the Critique, Kant says many, many times that he intends to open up new philosophical territory by exploring the necessary conditions for the possibility of experience. Despite the many controversies about Kant's views, no one doubts the centrality of this project to transcendental epistemology.

To sum up: Transcendental epistemology is concerned with our manner of knowing objects; and, more specifically, it is inextricably linked to the investigation of the possibility that some concepts or mental representations are of non-empirical origin and also inextricably linked to exploring the necessary conditions for the possibility of experience. How are the two more specific projects connected to each other? The goal of the Critique is to justify our right to make synthetic a priori knowledge claims, most famously, "All events have causes." However, Kant's argument proceeds by showing that we have the right to use certain concepts—e.g., a concept of cause that includes the idea of universality and necessity. And, as he never tires of repeating, that defense proceeds by arguing that the use of these concepts is indispensably necessary for the possibility of experience. Hence, the two projects definitive of "transcendental epistemology" fit together as follows: Through investigating the possibility of experience, one discovers that certain representations that are not of empirical origin, but derive from our mental faculties, are necessary for experience. Alternatively, the way to demonstrate that we are in possession of certain representations that are not of empirical origin, but that we may nevertheless legitimately use, is to show that they are necessary conditions for the possibility of experience itself.

Before turning to the juridical analogy, let me provide some clarification for the two key notions, "the possibility of experience" and "non-empirical origins." Almost all commentators note that Kant appears to use both stronger and weaker senses of "experience." As I have argued elsewhere, there is a fairly simple way to resolve this difficulty (Kitcher, 1990, 16–17). Kant was concerned with cognitive—as opposed to athletic or sexual—experience. There are, however, a variety of types or levels of cognitive experience, perceiving, classifying, rea-
soning, and so forth, to be investigated. When Kant referred to the possibility of experience in general, I believe that he was referring to the various cognitive tasks that make up our entire cognitive repertoire. To avoid the possibility of vicious ambiguity, I will describe him as exploring the necessary conditions for this or that particular cognitive task.

Although unavoidable in the texts, the key role of "representations of non-empirical origin" raises an apparent difficulty. In his reply to Eberhard, Kant asserted that "[t]he Critique admits absolutely no divinely implanted or innate representations." (Kant, 1790, p. 135, original emphasis, AA VIII: 221) Despite the seemingly decisive nature of this denial, he added an important qualification. Although all representations were acquired, some, including space, time and the categories, were "original acquisitions."!*14

The puzzling expression, "original acquisition," is again an explicit borrowing of legal terminology. It means, roughly, that owners may acquire title to something neither by purchase nor by grant of previous owners, but by their own actions. As Kant explained in the Doctrine of Right, those actions include recognizing that an object has no previous owner, declaring that they choose to appropriate the object, and defending the appropriation by appeal to a law to which all parties can agree (1797, 80–81, AA VI: 258–59).

Although Kant was usually at pains to distinguish between practical reason, which could create its own objects (in this case property out of something previously unowned), and theoretical reason, which could not (e. g. B ix–x, A550/B578), the point of the analogy was presumably that in the case of space, time, and the categories, the actions of the mind in acquiring knowledge were creative. Because the analogy is both unusual for Kant and critical for understanding his position on innateness, I quote his reflections at some length:

There is, however, an original acquisition (as the teachers of natural right formulate it), consequently also of that which previously did not exist, and therefore did not pertain to anything before the act. Such is, as the Critique shows, first of all, the form of things in space and time, secondly, the synthetic unity of the manifold in concepts; for neither of these is derived by our faculty of knowledge from the objects given to it..., but rather it brings them out of itself a priori. There must be a ground in the subject which makes it possible for these representations to originate in this and no other manner, and which enables them to be related to objects which are not yet given. This ground at least is innate....

The ground of the possibility of sensible intuition is...the merely particular receptivity of the mind, whereby it receives representations in accordance with its subjective constitution, when affected by something (in sensation). Only this first formal ground, e.g., the possibility of a representation in space is innate, not the spatial representation itself. For impressions are always required in order to first enable the faculty of knowledge to represent an object. (Kant, 1790:135–36, original emphasis, AA VIII: 221–22)15
In these passages, Kant seems to be elaborating his cryptic remark at B2, that although all knowledge begins with experience, it does not follow that it all arises out of experience. Some aspects of representations are acquired by the mind’s original way of reacting to the sensory data produced by experience, so that these features of representations are created by the mind out of its own resources and do not derive from the sensory data of experience, even though the representations would be impossible without this sensory data.\textsuperscript{16}

With these two clarifications, Kant’s “transcendental” turn in explaining and justifying knowledge may be captured as follows: Transcendental epistemology investigates the necessary conditions for the possibility of carrying out various cognitive tasks with a view to showing that certain features of representations that do not derive from the senses, but from the mind’s own constitution, are such necessary conditions. The contrast is with empirical knowledge. In the latter case, the task of epistemology is to justify claims to know by showing how various perceptions and inferences support particular judgments—without questioning how it is possible for cognizers to perceive or to infer or to judge at all.

Although Kant gave the analogy with juridical deductions great prominence in the \textit{Critique}, very little was made of this hint until Dieter Henrich’s 1989 paper, “Kant’s Notion of a Deduction and the Methodological Background of the \textit{First Critique}.” According to Henrich, legal deductions were written in order to settle disputes over rights to property or privileges. Deductions were appropriate only for acquired as opposed to innate rights. Although deductions used facts, there was a crucial distinction between questions of fact and questions of right. Henrich summarizes the rationale and \textit{modus operandi} of legal deductions as follows:

\begin{quote}
In order to decide whether an acquired right is real or only presumption, one must legally trace the possession somebody claims back to its origin. The process through which a possession or a usage is accounted for by explaining its origin, such that the rightfulness of the possession or the usage becomes apparent, defines the deduction….This implies that by definition a deduction must refer to an origin.\textsuperscript{1989, 35}
\end{quote}

As Henrich observes, once the original meaning of “deduction” is clarified, there is no mystery about why the methodological notion of a deduction and the epistemological question of the origin of knowledge are completely intertwined in the \textit{Critique}. He concludes we are now in a position to understand Kant’s distinctive question: How is this or that piece of knowledge possible?

The question does not ask for one or another sufficient condition for our possession of knowledge. In a state of doubt about the rightfulness of our claim to be in possession of genuine knowledge, it seeks to discover and to examine \textit{the real origin of our claim and with that the source of its legitimacy} (Henrich, 1989, 35, my emphasis).
Here I part company somewhat with Henrich. As already noted, it is very clear in the text that Kant intended to defend the legitimate use of the categories by revealing it to be indispensably necessary for the possibility of carrying out various cognitive tasks. So I do not agree with Henrich that Kant did or could establish the legitimacy of the principle of universal causation, say, merely by showing that some features of the representation of cause have their origin in the understanding (Henrich, 1987, 36). For, a feature could have such an origin and yet not be an adequate basis for cognition. The situation is more complex. Kant was concerned with both the possibility of vindicating synthetic a priori knowledge and with the possibility of cognition itself; he was concerned with the origin of features of the causal concept, but also with the origins of cognitive experience more generally. So the transcendental deduction proceeds by showing that certain types of cognitive tasks are possible at all only because we use, for example, a concept of cause that includes features that are not of empirical origin, but are supplied by the understanding itself.

This I take it is how the legitimacy of our right to use the concept is to be established. In the next section, I consider such transcendental proofs and evaluate their effectiveness as replies to skepticism; in Section 4, I consider possible criticisms, including the claim that they cannot vindicate a priori knowledge. For the rest of this section, I will show how this understanding of “transcendental” knowledge can illuminate Kant’s other two epistemological distinctions, the a priori versus the a posteriori and the analytic versus the synthetic.

Kant employed “a priori” in connection with four different ideas. His original discussion suggests that apriority is primarily a property of knowledge and that such knowledge is completely independent of experience (B2). Very shortly after introducing a priori knowledge, he offered two formal criteria by which a priori propositions may be distinguished: They are universal and necessary (B3). These two uses have caused little interpretive difficulty, because there is an obvious link between them. Propositions that are a priori, in the sense of being universal and necessary, could only be established independently of experience, because experience cannot teach universality or necessity. Given these features, independence from experience, and universality and necessity, many commentators have assumed that Kant was engaged in conceptual analysis (e.g. Bennett, 1966, 17, Strawson, 1966, 88, Allison, 148, 162). For such analysis is independent of experience and has been regarded by analytic philosophers as capable of delivering conclusions involving necessity.

However, this reading ignores two equally important usages of a priori. Kant often linked apriority with the question of origins:

Now we find, what is especially noteworthy, that even into our experiences there enter cognitions which must have their origin a priori, and which perhaps serve only to give coherence to our sense-representations (A2, amended translation, cf. B5).
Further, he connected apriority directly to the notion “transcendental,” explaining that a *a priori* knowledge is acquired through engaging in mathematical and transcendental proofs (A782–83/B810–11).

Given the preceding account of “transcendental,” including the juridical analogy, it is possible to understand exactly why Kant used “*a priori*” in these four contexts and to see the relations among them. Just as claimants declared that they had certain rights, which must then be established through a deduction, certain propositions announced, by their very logical form (they are universal or necessary), that they were independent of experience. For this unusual status to be upheld for synthetic propositions, they too had to be given a deduction that showed that they were indeed completely independent of experience. The mistake of standard interpretations is, I believe, that they stop at this negative touchstone and then ponder what independence of experience might amount to, usually settling on some type of conceptual analysis or perhaps on self-verifying propositions.20 As already noted, however, Kant gave his own positive account: A synthetic proposition that is independent of experience is established through mathematical or transcendental proof.21 And a transcendental proof proceeds by showing that a certain concept includes representations that both originate in our own mental faculties and yet are necessary conditions for the possibility of cognitive tasks.

Hence the problem of the *a priori* concerns a special way of knowing that involves independence from experience (although not independence from the possibility of experience in general), namely, knowing via a transcendental proof; it concerns propositions that are necessary and universal in form; and it concerns the origins of representations. Kant characterized transcendental philosophy as the “science” of the *a priori* (A12–13/B26–27), because he believed that he had a special way of showing that some propositions were universal and necessary. Given this interpretation, the Kantian *a priori* cannot be dismissed along with the linguistically based claims made by 20th century analytic philosophers or with his own obscure theory of mathematical proof. As we will see in section 4, the real objections to Kant’s distinctive transcendental method of establishing *a priori* claims are of a very different nature.

Kant offered a very simple account of the distinction between synthetic and analytic propositions:

> Analytic judgments...are therefore those in which the connection of the predicate with the subject is thought through identity; those in which this connection is thought without identity should be entitled synthetic. (A7/B11)

He also made it very clear that the focus of his efforts would be *a priori* propositions that are synthetic. Despite these textual indications, many contemporary interpreters have been unable to resist the idea that the propositions he tried to establish were analytic and that his proofs proceeded by some type of deep conceptual analysis.22
Lewis White Beck tried to point out the serious errors behind this popular interpretive strategy in two companion articles (1967). He offered three seemingly conclusive arguments. First, he noted that Kant’s usage of “analytic” is somewhat ambiguous, between a psychological criterion—whether the predicate concept is actually “thought in” the subject concept (A7/B11)—and a logical criterion, which involves some [unexplained] type of conceptual analysis (Beck, 1967, 8–9). The crucial point, however, is that neither of these uses is tied to the modern idea that analytic claims are true by definition. Second, Kant’s own views about definition clearly indicate that he would not accept the notion of “true by definition.” Kant maintained that a real definition must be based on a synthetic judgement, because it must indicate features that were associated with the concept in real instances. As a definition, it was analytic. But it owed its status as a definition to this underlying synthetic truth. Hence, for Kant, analytic claims were not true by definition; definitions grounded analytic claims by virtue of synthetic truths (Beck, 1967, 16–17, 26). Finally, Beck noted that followers tried to recast Kant’s synthetic claims in analytic form during his own lifetime—a move that he rejected as nothing but a cheap trick (Beck, 1967, 13–14, 34–36).

Despite the power of Beck’s textual arguments, the view that Kant’s so-called “synthetic” claims are disguisedly analytic has persisted to the present day. There appear to be two reasons for this unusual, but broad consensus. First, many philosophers take conceptual analysis to be the distinctive activity of philosophy. Second, it is fairly clear that however the arguments of the transcendental deduction and the Principles chapter are supposed to work, they are not logical proofs (or, if they are, they are one and all invalid). Hence conceptual analysis has seemed to be the only remaining possibility for establishing a priori conclusions.

Given the preceding interpretations of “transcendental” and “a priori,” however, this second reason loses its force. Kant was not engaged in logical proofs of a priori propositions—or anything like logical proof. Rather, he was trying to reveal the legitimacy of certain features of our ways of representing the world by tracing them to their origins and demonstrating their indispensability. As Henrich notes, this new understanding allows much greater flexibility in trying to figure out how Kant’s arguments are supposed to work (1989, 39). Further, for some philosophers, Quine’s attack on analyticity has weakened the grip of the first reason.

III.

Even by Kantian standards, my discussion so far has been excessively abstract and methodological. I will try to bring the interpretation down to earth, by showing transcendental epistemology in action. In this section, I will briefly describe how Kant’s transcendental method is able to defend the legitimate use of some contested concepts. In the next, I focus on its ability to establish apriority. Although I do not believe that Kant was concerned to combat skepticism in
general, this has been a popular reading and it provides a convenient handle for relating his transcendental investigations to traditional philosophical problems. Investigating the necessary conditions for performing various cognitive tasks turns out to be an effective method for combating some skeptical worries.

Kant was explicit about his intention to defend a necessitarian concept of cause (B5) and fairly direct in his argument for a necessary unity of self-identity A116/B131–32; he was also clear about his wish to give the lie to Cartesian and Berkeleyan skepticism, which he labels “idealism” (B274 ff.). Nevertheless, I think that some of his most effective anti-skeptical moves do not occur in set pieces, but in the laying out of his own positive positions.

In both the A edition’s Fourth Paralogism and the Refutation of Idealism, Kant cast the problem of Cartesian skepticism in terms of the asymmetry between the inner and the outer. For Descartes, inner experience was “indubitable” (B275), because it was “perceived immediately” (A367). By contrast, outer experience was “merely doubtful,” because it “can only be inferred as a cause of given perceptions” (A367, cf. B274). Kant adopted the ambitious strategy in the Refutation of trying to show that inner experience is possible only if we also experience outer objects. As Paul Guyer has argued in detail, the proof then proceeds by a number of questionable intermediate steps, such as the assumption that there are no psychological laws (1987, Part IV passim).

Notice, however, that his own positive views provide ample material for criticizing both Descartes’ and Berkeley’s objections to knowledge of “outer objects.” Again the key lies in the alleged differences between our access to and hence knowledge of inner and outer reality. These skeptics question our ability to know the existence of the external world on the grounds that all we are directly aware of are our own ideas. By contrast, inner experience—the awareness of our own states—is regarded as unproblematic. As Kant frequently observed, however, one of the most surprising implications of his theory of the forms of intuitions and the necessary synthesizing of cognitive states is that inner experience is also an “appearance” (is also constructed out of given data): “[inner sense] represents to consciousness even our own selves only as we appear to ourselves, not as we are in ourselves,” (B152–53); “I have no knowledge of myself as I am but merely as I appear to myself” (B158).

These materials provide the basis for the following far less controversial reply to skepticism about external objects. Descartes and Berkeley question the legitimacy of our references to “outer objects,” because there is a gap between the data which are given to consciousness and the objects inferred from that data. In fact, however, the data mistakenly described as “given” to consciousness are themselves constructed by the form of inner sense and syntheses of the understanding. Hence, there is also a gap between what we can be aware of as “given” in consciousness (even assuming, as Kant did not, that introspection is infallible) and the raw materials gathered by inner sense. If there is such a gap, however, then an Evil Demon could manipulate our powers of intuition and synthesis to
create appearances that are very different from the underlying inner reality. Of course, with outer objects, there would be two gaps, that between inner reality and inner appearance and another between inner reality and outer reality—but double deception seems no different in kind from single deception. Hence, to be consistent, skeptics should either doubt everything, including the awareness of their own states, or give up their objections to claims about "outer objects." Alternatively, a Kantian can point out that the skeptic's ideal of "direct perception" is a myth, so that it is no particular objection to references to "outer objects" that such objects cannot be "directly perceived."

To edge closer to the problem of the a priori, I turn now to Hume's skeptical analysis of the common belief in continuing and independent objects (1739, 187ff.). Since this discussion is extremely well-known, I will move straight to Hume's disturbing conclusion. We come to believe in the continuing (and hence independent) existence of objects through the effects of two mechanisms, a feeling of invariance that arises on the rare occasions when we view objects uninterruptedly and a tendency to confound similar feelings (1739, 202–3, 199). As he observed, these mechanisms are too "trivial" to lead to any solid reasoning (1739, 217).

Kant was undoubtedly aware of Hume's problem. Further, the claim that we have no direct access to objects was absolutely central to transcendental philosophy and Kant fully understood that he had to explain how we form beliefs about perduring objects on the basis of changing cognitive states. Nevertheless, he did not address Hume's skepticism about continuing and independent objects explicitly. As in the previous case, however, his transcendental investigations of the possibility of cognition provide a effective defense of the concept of continuing and independent objects.

Kant accepted the basic Empiricist doctrine that cognition requires that we take in information about the world through sensory perception (A120, B60). He did not simply assume perception, however, but launched a transcendental investigation into this capacity. How is perception itself possible? Or, more specifically, how are we able to form stable perceptual images on the basis of what Hume aptly described as the constant flux of perceptions, that "succeed each other with inconceivable rapidity" (1739, 252).

Kant's analysis is straightforward: Given that information comes in through the senses at different times (A99), we can form a stable image of an object—an image representing different spatial parts of the object in relation to each other—only if the rapidly changing, temporally distinct information is somehow combined (A 120). Moreover, the means of combination cannot be via the law of association, for these pieces of information must be brought together in a combination "such as they cannot have in sense itself" (A 120). So, for example, the perceptual image must represent the top of a house as above its other parts, whatever the order of viewing.

How can this analysis of the necessary conditions for perception address the
worries raised by Hume about our beliefs in independent objects? When Kant examined the cognitive tasks of representing objects (A104) and of making judgments about them (B142), he reached the same conclusion as Hume. To represent objects as continuous in time and so as independent of our cognitive states, it is necessary to combine data brought in through the senses in some way other than by the Empiricist law of association (A104–05). Further, to make any judgment about objects at all, it is necessary to combine data according to non-empirical principles that guarantee that the contents of the resulting judgments will be about objects understood as independent of our particular cognitive states (B142). These discoveries did not lead him to skepticism, because he had already shown that the mere perception of stable images also requires that some faculty order and combine the data of the senses. And given that a non-associative synthesis is needed even for perception, the presence of another (or the same) non-associative synthesis in more sophisticated forms of cognition should not occasion doubt.26

Let me now stand back and consider exactly how Kant’s argumentative strategy works. Something is in doubt, the legitimacy of referring to “outer objects” or of using a concept of “object” that implies continued and independent existence. Kant analyzed the necessary conditions for the possibility of carrying out such cognitive tasks and agreed with his opponents (most often Hume) in his results: Reference to “outer objects” involves going beyond the data collected by the senses; (in fact) using the concept of an object requires a non-empirically based combination of sensory impressions.

Unlike Descartes and Hume, however, he did not leave matters in that state. Instead, Kant’s strategy was to consider some other cognitive task whose status was not in doubt and show that it was in roughly the same epistemic boat as the contested task. So inner experience is like outer experience in being constructed. Against Hume, the argument was more specific: the uncontroversial task required the same or a similar non-empirical contribution from the mind as that which had originally put the controversial cognitive task in doubt. In the present example, he showed that non-associative syntheses that produce a greater order and coherence in our beliefs about objects than is present in the sensory data were also required just for perception. In the case of causation, I think it is widely recognized that the argument proceeds by showing that the same necessary connection between causes and effects that is required for the use of the causal concept is also required if we are merely to determine the occurrence of an event in time.27 Elsewhere I have argued that Kant demonstrated that the necessary connection among mental states required for the use of the concept “person” is also required if we are to be capable of the most minimal cognitive task of having representations that have content (Kitcher, 1982).

Thus, Kant defended the legitimacy of certain concepts, and the cognitive tasks in which they function, by investigating the necessary conditions for the
possibility of other non-controversial cognitive tasks. Insofar as his defense was
directed against particular skeptical opponents, it succeeded when he could show
that the non-empirical features required by the controversial tasks were also
ineliminable features of tasks conceded by the skeptic. In this respect, Kant’s
deductions were like 18th century juridical deductions in dealing with specific
antagonists and with legitimating circumstances that varied from case to case.

Kant’s quarry was less skepticism than apriority, however, and so his argu-
ments were also intended to establish two general theses for a general audience:
Do not reject a concept just because it involves features that cannot be traced to
experience, because some a priori concepts are legitimate; further, this is be-
cause the mind does and must play a much more active role at all levels of
cognition than had previously been realized. To accomplish both these related
aims, Kant argued that even the simplest and most basic cognitive tasks required
non-empirical features contributed by the mind.

If this is how Kant’s anti-skeptical arguments work, how effective are they? It
might be tempting to reply, as Jonathan Bennett did many years ago (1966, 101),
that such an argument does not vindicate any claims to knowledge, but merely
shows that our epistemic situation is far worse than even the skeptics had
thought! For now it appears that there is no such thing as direct perception and
that even simple cognitive achievements such as perceiving and recognizing the
occurrence of events in time must rely on dubious mental mechanisms. At one
level, this retort is unanswerable. If the skeptic wants to maintain that any so-
called “knowledge” that involves the integration of information by the mind is
hopelessly tainted, then there is nothing more to say. This move is unattractive,
however, for two reasons. Most obviously, skeptical arguments get their force by
showing that a piece of knowledge that was thought to be secure lacks that status.
But what security amounts to is established by appeal to contrasting cases. If
there are no secure cases, then it is unclear what has been lost.28 More impor-
tantly, however, if the skeptic concedes that all aspects of cognition, from the
simplest to the most complex, are permeated by contributions from the mind,
then he will have conceded exactly what Kant wanted to prove. For, although he
offered replies to a variety of skeptical challenges, he regarded universal skepti-
cism as something of a paper tiger (Aix, B128). By contrast, the central purpose
of transcendental epistemology was, as he said, to explore sensibility and under-
standing with a view to uncovering their essential contributions to cognition.

A better way to attack Kant would be to question the assumptions by which he
was able to generate his results. How could he establish that cognitive tasks
require particular contributions from our faculties without making fallible and
even dubious psychological assumptions about how we carry out cognitive tasks?
Worse still, how could this type of investigation possibly provide justification for
any claims to a priori knowledge? This is the critical objection to transcendental
epistemology and I will consider it in some detail in the next section.
IV.

Before tackling the objection itself, I want briefly to locate the problem of Kant’s reliance on psychology in its proper historical context and also in the context of contemporary epistemology. As I have noted previously, psychological readings of Kant were so prevalent from the beginning that Kuno Fischer was led to claim:

The question of whether the critique of reason is supposed to be metaphysical or anthropological [i.e. psychological] is a real problem, unavoidable in the history of the development of German philosophy since Kant.29

This interpretive tradition came to an end with the wave of anti-psychologism that followed Frege’s work in logic. Fischer’s question of how to reconcile Kant’s epistemological goals with his constant references to psychological faculties and representations was given a very short answer: Dismiss the psychology as inappropriate to the subject matter (Kitcher 1990, 6–9).

More recently, however, a number of philosophers have come to doubt the wisdom of isolating philosophy from the rest of inquiry. In particular, the new movement of “naturalized epistemology” has argued that epistemology should be cognizant of work in psychology, thus raising anew Kuno Fischer’s long-ignored question about Kantian and post-Kantian epistemology: How can the theory of knowledge be related to psychology without becoming psychology? After defending Kant against the charge of excessive or inappropriate reliance on psychology in this section, I will explain how his model of the epistemic situation can also illuminate and justify current appeals to psychology in the final section.

What part do psychological claims play in Kant’s transcendental investigations? The second example of the preceding section suggests two roles, although one may be inessential. First, psychology can offer perspicious descriptions of the cognitive tasks we perform: It distinguishes perception from conception. In some cases, this role might be equally well performed by common sense or by epistemology, which also distinguish among perceiving, conceiving, reasoning, et cetera. The second is to explain what data are available to the mind simply from the senses. This psychological information plays a crucial part in Kant’s account of perception. For he took it as given that retinal data are fleeting and in constant flux (Kitcher, 1990, 32–34).

This is only one example, but the same pattern is repeated in many discussions. In considering the problem of personal identity, Kant agreed with Hume that inner sense did not furnish a representation of a continuing self (A107, B134); in the Second Analogy, he started from the premise that time itself could not be perceived (B233). Despite attempts to de-psychologize Kant’s arguments (e.g. Guyer, 1989, 67), these claims are both essential to the arguments and clearly psychological. To see the latter point, it is only necessary to recognize that anyone of them could be refuted by future psychological discoveries. For example, although the claim that inner sense does not divulge a continuing self
seems secure, a carefully designed study could reveal a heretofore overlooked representation of the self. In the 18th and 19th centuries, Hume’s and Kant’s critics claimed to have made just such a discovery.130

Thus, a skeptic must be allowed to reply that Kant’s arguments work only by appealing to fallible psychological assumptions. And at this point the rejoinder may seem completely straightforward. Kant’s arguments lack the certainty he claimed for them and so cannot justify any claims to a priori knowledge—or perhaps, to any knowledge at all. In the First Edition Preface Kant announced his intentions in this regard:

As to certainty, I have prescribed to myself the maxim, that in this kind of investigation it is in no wise permissible to hold opinions. Everything, therefore, which bears any manner of resemblance to an hypothesis is to be treated as contraband;... Any knowledge that professes to hold a priori lays claim to be regarded as absolutely necessary. This applies still more to any determination of all pure a priori knowledge, since such determination has to serve as the measure, and therefore as the example, of all apodeictic (philosophical) certainty (Axv, original emphasis).

Kant’s prefatory remarks about certainty lend support to the idea that he was engaged in analyzing concepts, for only conceptual analysis even seems capable of delivering necessity. As Beck argues, however, the suggestion that Kant’s synthetic claims can be turned into analytic propositions and so “proved” by conceptual analysis is textually indefensible! So there is, as Kuno Fischer saw, a serious interpretive problem in understanding how the Kant who wrote this advertisement for his work could constantly appeal to psychology. To resolve this difficulty, we need to consider how he understood two crucial phrases: “entirely a priori” and “absolutely necessary.”

Although Kant emphasized that his focus would be on knowledge that was completely a priori, that is, knowledge that was “entirely [ganzlich] independent of all experience” (B2–3), it is universally acknowledged that his practice belied this intention—or at least significantly refined it. For, as already noted, transcendental proofs proceed by reference to the possibility of experience. Or, putting the point more bluntly, transcendental proofs are all conditional: If some very basic cognitive tasks are possible, then... .

Further, although Kant referred in the cited passage to “absolute necessity,” he did not employ the Leibnizian notion in his substantive discussions. He did not hold that the a priori and so necessary truths that he believed himself to have established were true in all possible worlds. Rather, as he tried to explain, these claims would be true only of objects that could be cognized by creatures with our cognitive constitutions (A27/B43, B138).31 Hence, the stress on “absolutely” is quite misleading. In all his substantive discussions, Kant used a notion of a priori relativized to the fact that at least some basic types of cognition occur and a notion of necessity relativized to our cognitive constitutions.
Skeptics who demand absolute certainty are not going to be satisfied with any of this. Perhaps Kant aimed only for a notion of necessity relativized to the human cognitive constitution. Perhaps, he realized that his results were certain, if at all, only relative to the fact or facts of cognition, viz., the assumptions he made and borrowed about the cognitive tasks we perform and the deliverances of our sense organs. Further, even if those assumptions were granted, it is not clear how he could argue infallibly from them to claims about non-empirical features of cognition. When these skeptics say they aim at certainty, they mean it. So although Kant may have an effective *tu quoque* against moderate skeptics, more radical skeptics have, by their own lights, a perfectly adequate rejoinder. In order to reveal object cognition as no more dependent on dubious mental mechanisms than perception, Kant had to start from fallible assumptions and proceed by fallible inferences; so his anti-skeptical argument fails.

As already noted, Kant had little interest in combating universal skeptics. His position on skeptics who demand absolute certainty is less clear (Kitcher, 1990, 24, Pereboom, 1990, 47). Nevertheless, since certainty has been largely rejected as a criterion for knowledge, the important question for contemporary epistemology is whether Kant’s use of psychology can be defended according to more reasonable standards of philosophical argument. Here I think there is a stronger and more interesting case to be made. Kant had a new model of the epistemic situation. Although he recognized that cognition required sensory data, he believed it was not a simple matter of receiving sensory input, but that all aspects of this complex process required essential contributions from the mind. Now, if Kant were right, then it would be extremely important for epistemology, for the question of justifying our claims to know would not just be a matter of tracing our beliefs to sensory evidence or of determining which cognitive achievements presuppose others, but of examining the processes involved in various aspects of cognition. In particular, it would be necessary to consider whether some cognitive tasks that were standardly regarded as grounding others actually employed mechanisms similar to those used in the tasks that they were believed to ground. Hence, once Kant presented his model, it was important to investigate its truth. It is extremely hard to see how this could be done, however, except by taking the best available information about what cognitive tasks we can perform and the best available evidence about the deliverance of our senses, and trying to determine whether any non-empirical features were required and, if so, whether this contribution could somehow be defended. Thus, what legitimates Kant’s transcendental method was the very substantive assumption that it was intended to establish. Kant was not begging the question, however, but merely trying to raise what he rightly saw to be an absolutely central issue for epistemology.

Even if Kant’s transcendental approach was reasonable in the context of general epistemology, there is a further, seemingly insuperable, difficulty with his use of psychology. Although he might defeat moderate skeptics who ques-
tioned our knowledge of external or continuing objects, his goal was much more ambitious. He wanted to explain the possibility of synthetic *a priori* knowledge. So, in the present case, the transcendental proof needed to establish not just that the mental construction involved in object cognition does not undermine our claims to know objects; it had to establish the *a priori* status of the claim that there are continuing and independent objects.\(^{32}\) To begin to understand how a transcendental proof could possibly establish such a status, we need first to clarify the relation between the psychology and the philosophy.

What role do normative epistemological considerations play in Kant’s transcendental arguments? Oddly, it is easier to see the normative dimension in Hume’s discussions than in Kant’s, because Hume’s results were negative. Normative considerations enter Hume’s accounts of the origins of our beliefs in two crucial places. First, when considering our beliefs about objects, for example, he argued that these were justified only if we had some satisfactory way of deriving continuity and independent existence from interrupted perceptions. As already noted, Kant agreed with most of Hume’s analyses about the necessary conditions that must be met for us to be capable of knowledge of objects, persons, or causal relations. Although the radical skeptic was correct in his earlier complaint that this process is fallible, discovering such conditions is a central task of epistemology and so there should be no general question about either Hume’s or Kant’s practice. Whether such epistemological investigations can plausibly regarded as leading to *a priori* knowledge is a question to which I will return.

If the first inquiry into the necessary conditions for performing object cognition revealed features that were not derived from sense impressions, then a second normative question had to be raised: Were the mind’s contributions such that they legitimated or undermined the resulting belief? In the cases of object cognition, causation, and personal identity, Hume came to the same negative conclusions. Mechanisms such as the feeling of invariance and the felt necessity of the mind moving from one idea to another were too trivial and too irrelevant to underwrite the beliefs they appeared to produce.

Kant’s transcendental method enabled him to approach this second normative question from a very different and more fruitful angle. To determine which of the mind’s constructing activities were legitimate, he considered the role of that activity in cognition in general. This permitted him to give effective replies to moderate skeptics, by trapping them in inconsistency. Kant’s broader approach also enabled him to develop a positive and potentially refinable criterion: A constructing activity would be legitimate just in case the feature it contributed was a necessary condition for carrying out the most basic cognitive tasks (A28–29).\(^{33}\) Which cognitive tasks were the most basic? Kant began with the common assumptions of his time: The ability to represent at all was the most basic mental capacity;\(^ {34}\) sensory perception was an essential source of evidence for claims to know; the ability to recognize events was more basic than the ability to discern causal relations, and so forth. His own investigations changed the positions of
some items on the standard list and further epistemological and psychological studies could provide further refinements.

Kant also offered two negative tests for the legitimacy of a constructing activity: If a cognitive mechanism varied from individual to individual, such as the perception of color, then it could not be a satisfactory basis for cognition, for the claims it produces fail to meet the most minimal test of inter-subjective validity (B45). Second, if a cognitive mechanism led to inconsistent beliefs, then it must be stigmatized as a source of illusion (A424/B452). These negative touchstones were, however, merely convenient tests for eliminating pretenders. The serious work of legitimating a constructing activity came in showing its indispensability to basic cognitive tasks. But does this criterion provide an appropriate test of legitimacy? Despite all the confusion and controversy about his transcendental method, Kant’s point was simple and direct: We can do no better cognitively than to use, for example, the non-associative rule (or rules) of combining sensory information that permit(s) us to achieve stable percepts of objects and to make judgments about objects, because did we not use such rules, then we would have no cognitive lives at all. They are legitimate, because indispensable. Just as it makes no sense for ethicists to claim that people are required to do something that they cannot do or cannot do without giving up their moral agency, it makes no sense for epistemologists to require people to give up those constructing activities (if, indeed, they could give them up), without which they would not be epistemic agents.

Hence Kant’s defense of the apriority of certain claims and his transcendental turn in epistemology both stand or fall with his arguments that particular non-empirical elements must be contributed by the mind for basic cognitive tasks to be possible. Other interpreters have avoided this straightforward reading either because they believe that philosophers have no business reflecting on mental mechanisms (Strawson, 1966, 88, Rorty 1970, 240–43), or because they think it highly improbably that there are any mechanisms that are indispensable to human cognition (Körner, 1969, 233ff.), or for both reasons. As I read the current psychological literature, however, there is fairly widespread agreement that the mind makes substantial contributions to perception and belief (e. g. Spelke, 1988, 172, Goldman, 1986, 187) and it is an open question whether, at a suitably abstract (from particular physical mechanisms) level of description, any of these contributions is essential (Marr, 1982, 17, 23, 27).35

The same transcendental proof that establishes indispensability, yields the grounds “by which we know that—and how—certain representations (intuitions and concepts) can be employed or are possible purely a priori” (A56/B80–81). For the proof reveals (1) that these non-associative rules do not derive from the sensory data themselves and (2) that they will be operative in all possible future cognitions. The judgment that there are continuing and independent objects will be a universal feature of human cognition. Hence, this judgment will be knowable “a priori” in Kant’s special sense of that expression. For it involves repre-
sentations that do not derive from the sensory data, it is true in all worlds in which we can engage in the basic cognitive task of judging at all (and so necessary),36 and it is established by a transcendental proof.

Let me turn, finally, to the obvious objection that however Kant defined “a priori knowledge,” this is no way to establish a priori knowledge! Without trying to do full justice to the large topic of apriority, I believe that the objection can be answered. For most philosophers and for Kant, a priori knowledge is bound up with five different criteria:37

(1) *A priori* judgments are necessary and universal.
(2) The paradigm cases of apparent *a priori* judgments are logic and mathematics.
(3) *A priori* judgments are established independently of sensory experience.
(4) *A priori* judgments are unreviseable.
(5) *A priori* judgments are certain or infallible.

Even if some philosophers might disagree with Kant’s way of elaborating “necessity,” he clearly invoked the first standard feature of the notion of apriority. Further, given his views about the relation of the forms of intuition to mathematics and the categories to the logical forms of judgments, he expected to reveal something like the laws of mathematics and logic to be *a priori*.

But what about the third, fourth, and fifth criteria? On my reading, Kant’s way of meeting the third requirement may seem almost perverse. For he appealed to what was known about the materials supplied by the senses—that is, to empirical, albeit widely agreed upon, theories—in order to argue that some features of representations were completely independent of sensory experience (B2–3). At this point, it is crucial to distinguish between Kant’s transcendental proofs and the claims that they were meant to establish as *a priori*. To the endless frustration of his interpreters (e. g. Bennett, 1966, 16ff.), Kant said almost nothing about the status of the propositions used in his transcendental arguments. As long as the deduction of the categories was viewed as a logical deduction, the answer to this question seemed forced: Synthetic *a priori* propositions could only be deduced from propositions with the same status. We are now clearer, however, that Kant’s model was not logical deduction, but something very different, juridical deduction. So the question of whether the propositions involved in establishing a claim to apriority must themselves be *a priori* has to be argued.38

Still, with the independence from sensory experience criterion, it may seem easy to make such a case. For, how could the conclusion be known in complete independence from sensory experience if the premises from which it is derived are based on experience? As already noted, no reasonable interpretation can read Kant as claiming that *a priori* judgments are established in a way that is completely independent of all experience (above, p. 299). On his own view, cognitive life cannot begin without experience. So the interpretive problem is to figure out
what notion of “independent from experience” is operative in actual discussions. One suggestion is that a priori knowledge could be acquired regardless of particular sensory experiences, just so long as they were sufficient for the knower to attain the relevant concepts (Kitcher, 1980, 5–6, Pereboom, 1990, 41, 45–6). However, this reading takes no account of Kant’s stated goal to discover the “additions” to cognition made by sensibility and understanding (A1–2/ B1–2, see also, A22/B36, A65–66/B90–91).

Close attention to the initial statement of this goal reveals the true Kantian position:

...it may well be that our empirical knowledge is itself a composite of what we receive through impressions and of what our own faculty of knowledge (sensible impressions serving merely as the occasion) supplies from itself. If our faculty of knowledge makes any such addition [Zusatz], 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.

This, then, is a question which at least calls for closer examination, and does not allow of any off-hand answer:—whether there is any knowledge that is in this way [dergleichen] independent of experience and even of all impressions of the senses. Such knowledge is entitled a priori, and is distinguished from the empirical, which has its sources a posteriori, that is, in experience (B1–2, amended translation, my emphasis).

The underscored “in this way” clearly indicates that what Kant meant by “independent from experience” was that some feature of cognition or representations derived from the mind’s own constructing activity. This reading is further confirmed by the subsequent contrast with a posteriori knowledge which has its source in [sensory] experience. What else could Kant have meant but that a priori knowledge was independent of experience in the sense that it has its origin in our mental faculties? Hence, what he regarded as “entirely independent” of sensory experience was not the transcendental proof, but the feature of representations noted in its conclusion. And that really would be entirely independent of sensory experience, because that is exactly what transcendental proofs were supposed to show—that the feature did not derive from the senses.

A critic may still object that, even if this is what Kant meant by “a priori,” the modern notion includes the idea that such judgments are established in some way that is itself independent of experience. There are, however, two clear rejoinders to this point. First, the philosophical notion of apriority derives in large measure from the work of Kant. Hence, there is reason to believe that the inclusion of this feature in current discussions simply reflects a plausible and widespread misreading of Kant. Further, as in the case of free will, the problem of the “a priori” is to find some interesting sense in which there might be a priori knowledge. And, although this may depend somewhat on taste, Kant seems to have offered a credible candidate.
Exactly the same strategy can be used to deal with the fourth property, unrevisability: Distinguish the status of the judgment from that of the argument used to demonstrate it. Some years ago, Hilary Putnam observed that the propositions used to establish a claim of apriority need not be infallible. His argument was that the metatheory used in the proof (in his case, the theory of rationality) could be fallible without undermining the *a priori* status of the claim in question (1979, 108–9).

Putnam’s reasoning applies equally well to Kant’s transcendental proofs. The first point to note from the preceding account is that Kant had two metatheories: epistemology and psychology. So the difficulty is not confined to psychology. Kant may have believed that his (and perhaps some of Hume’s) epistemological endeavors were unrevisable, certain, and infallible, but he had no argument to that effect. Notice, however, that even if the epistemological and psychological claims used in his transcendental proof were neither known independently of experience, nor unrevisable, nor infallible, but merely true, then the judgment in question—there are continuing and independent objects—would be unrevisable, as well as universal, necessary, and not derived from sensory experience. For if Kant’s transcendental argument was correct, then the non-empirical syntheses that produce beliefs about independent objects would be operative so long as the agent was capable of judgment about objects at all; if, as Kant believed the same syntheses are involved in judgment and perception (B105), then they would be operative so long as the agent was capable of perception. Thus, the only circumstances in which this proposition could be given up would be if the agent were incapable of basic cognitive tasks. Hence, relative to the assumption that creatures with our cognitive capacities are capable of basic cognition, the claim is unrevisable.

Obviously, the same strategy cannot be applied to the fifth criterion, certainty. If the claims used in Kant’s transcendental arguments are not certain, but fallible, then that status must be passed to the claims established by them. Should critics of *a priori* knowledge insist on certainty as a criterion, then the debate is over. But this victory would be too easy. For the acceptance of fallibilism is almost universal in philosophy. Even those who believe in analytic truth make no claims for the infallibility of their conceptual analyses (Strawson and Grice, 1956). So it seems unreasonable to make the rejection of the *a priori* a direct consequence of fallibilism, particularly after Putnam’s (1979, 136) demonstration that what he termed a “modest and sane fallibilism” is consistent with other standard features of apriority.

Much more needs to be said about Kant’s discussions of cognitive construction and the lessons he extracted from them. At this point, however, I believe that I have provided four partial answers to Kuno Fischer’s important question.

First, Kant’s use of psychological material was essential and justified. Without assumptions about the cognitive tasks we perform, and about the information provided by the senses, his epistemology would be an non-starter. He literally
could not begin his efforts to uncover the non-empirical, but necessary features of various cognitive tasks.

Second, transcendental epistemology was not merely psychology. It essentially involved normative epistemological questions. In particular, Kant was concerned with the conditions under which certain controversial claims to knowledge would be legitimate and he was concerned to legitimate some of the constructive activities underlying cognition.

Third, despite nearly 200 years of complaints to the contrary (partly provoked by his own overstated claims to certainty), Kant’s use of psychology was appropriate for establishing the possibility of a priori knowledge. Investigating the basic capacities required for knowledge is a plausible method for establishing that some claims may have an unusual epistemic status. Specifically, it would be a reasonable method for showing that some claims are unreviewable, strictly universal, and true in any world we can cognize at all, because they are tied very directly to the cognitive structures that make knowledge possible.

Fourth, Kant’s use of psychology was extremely moderate. He did not offer psychological hypotheses about particular mechanisms (Kitcher 1990, 13–14) and the only assumptions that he borrowed from psychology were those needed to test his hypothesis about the importance of the mind’s contributions to cognition. Further, those assumptions were widely accepted at the time and are still regarded as true by contemporary psychology.41

We now know much more about the structures that make cognition possible than Kant did. In the final section, I will appeal both to his example and to his epistemic model to illuminate current controversies about the use of psychological assumptions in naturalized epistemology.

V.

There is more than a little irony in appealing to Kant to support the claims of naturalized epistemology. Quine’s (1969, 19–21) original argument for naturalizing was based on his rejection of possibility of any a priori philosophy. Further, for Quine, naturalizing meant giving up on the normative project of epistemology (1969, 23–24).42 And it is hard to think of anyone in the history of philosophy more dedicated to apriority and normativity in epistemology than Kant. Nevertheless, naturalized epistemology is a house of many mansions and few of Quine’s converts have been willing to follow his lead in forsaking normativity. Indeed, one of the central questions of the movement has been how to reconcile naturalistic and normative concerns.

More generally, recent debates about naturalizing epistemology have focussed on three key questions (Kornblith 1987, 1–11):

1. Can a psychological approach contribute to the solution of traditional philosophical problems?
2. Can normative and natural theses be successfully combined in an epistemological theory?
3. Must epistemology involve itself with psychology, or is naturalizing epistemology simply one approach?

Contemporary advocates for linking epistemology to psychology have provided positive answers to these three questions. Surprisingly enough, however, Kant’s work can significantly strengthen their case. Taking Alvin Goldman as well as Quine as representatives of the current movement, I will shown how Kantian considerations can reinforce some of their arguments for epistemology naturalized and complement others, while also offering a general framework for the entire debate. Although Quine would reject such an alliance, Goldman is happy to acknowledge Kant as a precursor (1986, 227, 228).

I have presented these issues in order of increasing difficulty and I will start with the easiest question about the potential for psychology to help resolve traditional philosophical problems. In *Epistemology and Cognition* (1986), Goldman argues that psychology can make significant contributions in the battle against skepticism. Psychology can blunt skeptical attacks, by revealing that a mechanism such as perception is highly reliable. A skeptic may raise doubts about the veridicality of perception, by recounting the familiar perceptual illusions or by noting the possibility of hallucination or of confusing dreaming and waking states. The next move is to suggest that since the senses can sometimes deceive, they are not to be trusted. As Goldman observes, psychology can weaken the force of such arguments, by explaining how the perceptual system is constructed so that it normally extracts accurate information and also why it fails in special circumstances. That is, psychology can testify to the general reliability of perception, while conceding its fallibility, thus reducing the issue to the question of whether infallibility or mere reliability is sufficient for justification (Goldman, 1986, 191–96).

As we have seen, Kant used psychological considerations to approach two traditional problems of epistemology, skepticism and apriority. Like Goldman, he could do nothing with universal skeptics or skeptics who demanded certainty except refuse to play their game. He had, however, a method capable of generating counter-arguments against particular skeptical claims: Show that the constructing activity that leads skeptics to doubt a particular achievement is also required (or something very like it is required) for tasks they accept as paradigms of successful cognition. Even more surprisingly, Kant appealed to widely recognized facts about perception and association to establish the possibility of *a priori* knowledge.

The objection that natural and normative considerations cannot be combined in epistemology can be expressed in three progressively more sophisticated versions: Such theories will not be normative; or, if they are normative, it will be by virtue of committing the fallacy of psychologism; or, if psychologism is avoided, then the psychological portion will make no essential contribution to epistemology. I will handle the first two forms of the objection together and then consider the third at greater length.
Kant’s example establishes that a theory can essentially involve psychology, but nonetheless be normative. Further, he clearly avoided the naturalistic fallacy. He did not believe that the fact that a constructing activity occurs implied that it was a legitimate basis for knowledge. To achieve that status, the activity must either be required for the most basic cognitive tasks or be vindicated by reference to basic cognitive tasks such as perception.

The third version of the normative/natural objection poses the most difficult challenge for epistemology naturalized. For, in trying to argue for the normative character of the theory, it is tempting to appeal to its purely philosophical elements. So for example, Goldman suggests a division of labor between philosophy and psychology. Psychology uncovers the mechanisms involved in various cognitive achievements and philosophy decides whether those mechanisms are an adequate basis for knowledge, by employing its standards of reliability (Goldman, 1978, 226–27). Hence the suspicion arises that psychology may be central to an epistemological theory, but still have no role in what may be called “essential epistemology,” the establishment of justificatory norms.

At places, my own presentation of Kant’s method may imply a similarly uneven division of labor. Psychology informs us about the tasks that can be done and the sensory information available; philosophy then provides the normative dimension, by determining the conditions that must be met for certain types of knowledge claim to be possible and by legitimating the contributions of cognitive constructions. This impression is, however, mistaken. For Kant’s deepest epistemological insight came directly out of psychology: All cognitive achievements are partly a matter of the data we take in, and partly a matter of our own constructing activities. This realization led him to propose important changes in the justificatory projects of epistemology. Henceforth, epistemologists should investigate whether any of the mind’s constructing activities were so essential to cognition that their contributions to representations of objects permeated all aspects of cognitive life. Previously, the central justificatory question was how representations might conform to objects; now it was necessary to consider how cognitions of objects [might] inevitably conform to and reflect the constructive activities that make representations possible. For, if some mental construction is essential to even the most basic object cognition, then the only meaningful comparisons would be between sophisticated, theoretical representations of objects and more basic—but nonetheless constructed—representations. Further, given that all cognition involved some construction, then a new route would be available for the discovery of claims that are universal and necessary for creatures with our cognitive capacities: Look neither to experience, which is incapable of delivering necessity or true universality, nor to deduction from concepts, which can prove nothing about the world we encounter through our senses, but to the necessary conditions for cognition itself. Kant may have been guilty of rhetorical excess in comparing the situation in epistemology to the Copernican revolution, but his investigations into the mind’s constructive activities did repre-
sent fundamental changes in the project of epistemology. Hence transcendental philosophy provides a clear and compelling example of the influence of psychology on essential epistemology.

I will conclude by considering the most tendentious issue in naturalized epistemology: Must epistemology take the naturalistic turn—or, as Goldman (1986, 6) observes, return—to psychology? As noted, the original argument for naturalizing came from Quine’s rejection of the possibility of a priori philosophy. If there is no first philosophy, no special method of attaining necessary truths, then Quine argued that epistemology could continue as a respectable discipline only by becoming a branch of psychology (1969, 23–24). Although this view has attracted many adherents, a large contingent of epistemologists reject Quine’s attacks on analyticity, apriority, and/or normativity, and consequently decline his invitation to join forces with psychology.

Beyond favoring normativity and apriority, Kant based his epistemology on what Quine stigmatizes as an “uncritical mentalism” (Quine, 1969, 22). That is, as I have argued, Kant’s notion of the a priori and its importance to epistemology reflects his views about the contributions of mental faculties to cognition. Nevertheless, Quine would be hard-pressed to find a more powerful champion for a marriage of epistemology and psychology. For, as noted above, if Kant’s model of the human epistemic condition is right, then epistemology must involve psychology. If even the most basic acts of cognition require mental construction, then psychology both changes the agenda of epistemology and furnishes essential information in determining the mind’s contributions to knowledge.

Now suppose that Kant is wrong and the Empiricists are right. The mind does not actively create cognition, but more or less mirrors sensory input. Epistemology would still be importantly influenced by psychology—because psychology would play a central role in determining the merely reflective character of mental states. By raising the question of the mind’s possible contributions to cognition, Kant greatly clarified the role of psychological assumptions in epistemology. For once the question is posed, it is clear that the “non-psychological” approach also presupposes a psychological premise: “Mental structures do not have a great impact on basic level representations of objects.” Hence transcendental philosophy introduced a framework into epistemology that reveals that, at some level, any epistemology must make psychological assumptions.

If epistemology inevitably makes assumptions about the relative influence of mental structures on cognition, then it should take advantage of the best current information. In recent years, psychology has turned away from the extreme Empiricist position of behaviorism and adopted a computational approach that lays much greater emphasis on mental processing. Although not unanimous, the general consensus is that the mind’s contributions to perception and belief are vastly more important than behaviorists allowed. Under these circumstances, Kant would argue that it is very important to examine those contributions. One reason epistemologists have become interested in psychology again is that cogni-
tive psychology now shows some promise of being able to explain processes underlying cognition. The Kantian directive is, however, considerably stronger: It is not just interesting to know how cognition happens; we must understand how cognition happens if we are to fulfill the justificatory project of epistemology. For, if the mind actively creates perceptions as well as beliefs, then determining that our beliefs are adequately grounded must be a matter of comparing sophisticated representations with more basic ones. And until we understand how different representations are constructed, it is not clear which representations are the most basic—or even what criterion should be used to distinguish determine the relative sophistication of a representation.45

Although Quine’s behaviorist scruples would prevent him from embracing either ally, together Kantian epistemology and cognitive psychology make an overwhelming case for naturalizing epistemology. After Kant, it is clear that psychological assumptions are critically important in determining the direction of epistemology. But given current views in psychology, the direction of epistemology should be a return to its roots as a discipline deeply informed by psychology.46

Notes

1Quine (1953) also offers a further argument against the possibility of a priori knowledge. For Quine, an a priori claim is one that can never be revised. He argues that since all our claims are simultaneously tested by recalcitrant experience, we could refuse to revise any one of them, just so long as we are willing to give up others. Hence, any claim could be regarded as un revisable, so the notion of a privileged class of a priori claims collapses.

Although this argument attacks apriority directly, it turns on the same point as the argument against analyticity. In both cases, Quine’s position is that the definitions we stipulate or the claims we refuse to revise are too arbitrary to ground a principled distinction. (I discuss the un revisability criterion of apriority in relation to Kant’s defense of a priori knowledge below, p. 305.)

2“If You’re Anxious for to Shine” from Patience.

3Most contemporary treatments of Kant do not try to provide systematic accounts of his epistemological categories. So, for example, Bennett offers a fairly extensive discussion of the analytic/synthetic and a priori/a posteriori distinctions. But his purpose is to argue that Quine was right that the analytic and a priori go together (1966, 4–10). He does not tackle “transcendental” at all. Guyer (1987) does not discuss the “a priori” in detail until his 16th chapter and then does not relate it to the “transcendental.” By contrast, Allison (1983) begins by considering Kant’s transcendental approach, but does not clarify its relation to the problem of a priori knowledge that the Critique was supposed to solve. (One exception to this trend is Pereboom 1990, which offers a careful analysis of “transcendental” and “a priori.” I discuss this account briefly below p. 304 and note 12.)

Presumably, the near silence of contemporary interpreters on these topics implies that they believe that Kant’s notions of “transcendental knowledge,” “a priori knowledge,” and “analytic judgment” are already well-understood. The source of this common understanding is, however, not obvious. Among contemporary epistemologists, the questions of “a priori knowledge” (Moser, 1987) and “analytic proposition” (Quine, 1953, Strawson and Grice, 1956, Burge, 1992) are extremely vexed; and, as noted, the issue of transcendental knowledge rarely surfaces.

Going back in Kant scholarship, Kemp Smith offered a brief history of the terms “transcendent” and “transcendental.” He maintained that Kant’s notion of “transcendental” was ambiguous among a “theory of the a priori,” the “a priori” itself, and “a priori faculties” (1923, 73–76), without making any effort to resolve these alleged tensions. Thus, he failed to provide a clear and compelling account of the relation between the “transcendental” and the “a priori.” (See below, note 13 for a resolution of the alleged ambiguity and pp. 291–292 for an account of the relation between “transcendental” and “a
priori”.). H. J. Paton argued that the root meaning of “transcendental” had to do with origins, but made no attempt to connect that meaning with the problem of the a priori, even though his next paragraph made a seamless transition to the topic of a priori knowledge (1936, vol I., 228–29, see also 226–27).

4Bona Meyer (1870) offers a survey of early psychological criticisms, including the influential discussions of Jacob Friedrich Fries and Karl Leonhard Reinhold. In Bona Meyer’s view, these early accounts, especially that of Fries, formed the basis of the well-known later judgements of Fichte and Schopenhauer.


6Kemp Smith indexes further passages that pertain to Kant’s other uses of “transcendental.” e.g. “transcendental ideality and idealism” and “transcendental faculty.” I discuss some of the relations among these uses below in note 13.

7On Kant’s view, mathematical concepts can always be constructed and so exhibited in intuition. By contrast, the transcendental propositions of reason cannot be constructed in intuition; they offer only principles for the synthesis of possible empirical intuitions. That is, the categories are involved in construction, but only on the basis of given sensory data, whereas in mathematics, Kant believed that intuitions could be constructed in “pure” intuition (A720/B748).

8All citations from the Critique of Pure Reason use the standard A and B pagination. I indicate where I have departed from Kemp Smith’s 1929 translation. When referring to Kant’s other writings, I cite the pagination from the translation I am using plus the location of the passage in the Academy Edition of Kant’s works (Kant 1902-).

9The implied contrast is with Kant’s views of mathematical proof. See note 7.


11See previous note.

12Pereboom offers a different account of the relation between the genetic and justificatory aspects of transcendental proofs: Because a feature is contributed by the mind, it is always present in experience and hence can be discovered. That is, because a structure has its genesis in the mind, it is universal and can be discovered by a transcendental proof to be so (1990, 41). I do not see how the universal presence of a feature will enable us always to know that it is universal. As I argue below, it is necessary to appeal to psychology to determine what features of representations derive from the senses and which derive from the mind. Also see, B2. Although neither makes an explicit connection with non-empirical elements, my analysis of “transcendental” is closest to Stroud 1968 and 1977 (see 252 and 113 respectively) and Hintikka 1972 (see 274–75).

13Kant also used “transcendental” in other contexts. So, for example, he claimed that imagination was a “transcendental” faculty (A123, B151–52) and that the representation of space was “transcendently ideal” (A28, B44). At least in the Critique, however, the psychological and metaphysical senses of “transcendental” presuppose the epistemological sense [cf. Prolegomena, 1786, 41, where Kant suggest that “the word ‘transcendental’, which by me never means a reference to knowledge of things, but only to the cognitive faculty”]. For the grounds for labeling a faculty or a representation “transcendental” are precisely that that faculty or that representation has been shown by a transcendental proof to be (1) not totally driven by or derived from sensory data and (2) nevertheless necessary for the possibility of experience. For example, he concluded that we have a “transcendental” faculty of imagination (A123), by arguing that every appearance includes “a multiplicity and since perceptions therefore are met in the mind separately and singly, a combination of them such as they cannot have in sense itself is demanded”; hence imagination is “a necessary ingredient in perception itself” (A120 and A120n, amended translation.). In the case of space, he argued that this representation was “not an empirical concept which has been derived from outer experience…” [but that] “outer experience is itself possible at all only through that representation” (A23/B38, cf. A30/B46; cf. A30/B46 which makes the same points about time).

Although Kant firmly connects the idea of transcendental proof with the possibility of experience, in the end, his usage becomes somewhat ambiguous. For he also labels certain ideas of reason “transcendental” even though they are beyond the bounds of experience (A409/B436). Still, these ideas “have an indispensably necessary, regulative employment…” (A644/B672). They are indispensably necessary for extending the scope of empirical knowledge as widely as possible. I’m grateful to Henry Allison for reminding me of the slightly odd status of the transcendental ideas.

14In commenting on an earlier draft, both Lorne Falkenstein and Derk Pereboom noted that
Kant's denial of innateness in the Eberhard reply relies on an idiosyncratic sense of "innate." Falkenstein suggested that Kant's usage should be understood in light of the notion of "original acquisition." The following discussion is heavily indebted to his and Pereboom's very helpful remarks.

15"On a Discovery" post-dates the Critique by several years. However, the doctrine that some aspects of representations reflected the mind's ways of reacting to the sensory data it received was clearly articulated in the Inaugural Dissertation: "For things cannot appear to the senses under any species at all except by the mediation of the power of the mind which coordinates all sensations according to a law which is stable and is planted in its own nature (Kant, 1770, 71, AA II: 404).

16Although it enriches the account, this view is compatible with the approach I took to Kant's nativistic remarks in Kitcher, 1990, 37.

17Kant regarded faculties teleologically (e.g., 1785, 11, AA IV: 395). Nevertheless, he did not believe that a judgment could be defended merely by tracing its origin to the natural function of a faculty. Most obviously, the natural striving of reason for completeness in no way justified the metaphysical claims that he regarded as the direct consequence of this propensity (e.g. A338/B396ff.). In section IV, I present what I take to be Kant's criterion for distinguishing which of the mind's contributions to judgments were legitimate bases for knowledge (p. 301–302).

18I discuss this issue at greater length in section 4, pp. 301–302.

19The account that follows is an extension of the interpretation of "a priori" originally given in 1990, 15–18.

20E.g., Stroud (1968, 253) and Kitcher (1980, 16–17) both opt for self-verifying propositions.

21In an earlier passage Kant suggested that analytic a priori claims could be known to be true through conceptual analysis (B12).


23Although Burge (1992) distinguishes three different current notions of analyticity, he believes that Kant conflated them all. For reasons I give in the text, I do not believe that Kant held any sentences to be true merely by definition.

24Here I agree with Rosenberg 1975 (613 ff.) that one fruitful way to understand Kant's transcendental efforts is to see them as offering new modes of solution to Hume's problems about the legitimacy of various concepts.

I also discuss this example in Kitcher, 1991 and some of the following derives from that discussion. My purpose there was to illustrate what I took to be the essential differences between Kant's and Hume's approaches to epistemology.

25Kant owned a German translation of the Inquiry [Warda, 1922, 50], where Hume gave a brief, but cogent statement of the difficulty of inferring from perceptions to objects (1758, 160–62).

26Kant suggests that the syntheses involved in perception and judgment are identical at B105 and argues for this claim at B160.


28I believe that Richard Rorty has characterized the skeptic's burden in similar terms, but I have been unable to trace the reference.

29Cited in Bona Meyer, 1870, 5.

30E.g. Tetens, 1777, 393.

31For an opposing view of Kant on necessity see Brook (1993).

32Although "object" is not on Kant's official list of a priori concepts, he clearly regarded it as such. See A104, B142, and especially A11–12: "I call all knowledge transcendental which is concerned not so much with objects but with our a priori concepts of objects in general."

33Kant sometimes expressed this point by saying that the contribution was "objectively valid":

The a priori conditions of a possible experience in general are at the same time conditions of the possibility of objects of experience....They are fundamental concepts by which we think of objects in general for appearances and have therefore a priori objective validity (A111).

34E.g. Wolff's systematic presentation of Leibniz characterizes the vis representa (power of representation) as the soul's most basic power. For further discussion, see Kitcher, 1990, 67.

35I have argued elsewhere (Kitcher, 1990, Chapter 8) that relations of support between contemporary cognitive psychology and Kantian epistemology are reciprocal: Current trends in psychology
makes the Kantian picture seem more plausible; Kant’s analyses of the requirements for cognition can provide direction to contemporary work.

34Without getting into this complex issue in any detail, I should note that Kant had a very sophisticated idealist conception of truth. See A58/B83, A191/B236, A647/B675.

35Chisholm (1966, 73, 75) refers to necessity and independence from particular perceptions; Putnam (1979, 86, 94, 108) refers to necessity, the paradigmatic character of logic and mathematics, and infallibility. Two other frequently mentioned marks of the a priori are analyticity (Ayer, 1946, 16) and self-evidence. The latter criterion has fallen into disuse, however (Kornblith, 1987, 11), and most realize that a case for co-extensivity of “a priori” and “analytic” has to be made by appealing to less controversial criteria.

36In this paragraph, I am extending the insight from Putnam, 1979 that I discuss below, p. 305.

37Perhaps it would be more accurate to say that interpreting Kantian apriority as involving a process that is itself independent of experience reflects one half of Kant’s thought: the view that this status can be established by mathematical proof. By contrast, my interpretation stresses the method of transcendental proof.

40As Putnam argues in another paper (1978, 98), it is unreasonable to put what he calls a “behavioral interpretation” on Quine’s criterion of unrevisability. That is, it is unlikely that Quine [or anyone] would assert that a claim was unrevisable only if it was a sheer behavioral fact about us that we would never give it up. As Putnam notes, the more charitable interpretation is that an unrevisable claim is one that we would never be rational to give up.

41E.g., both Empiricists (Hume, 1739, 252) and Rationalists (Leibniz, 1704, 54) believed that the information on the retina was constantly changing. For a statement of the current, similar view, see Marr, 1982.

42See also Kornblith, 1987, 4.

43See note 17.

44In “Epistemic Folkways and Scientific Epistemology” (1992), Goldman suggests how psychology can contribute to the establishment of justificatory norms. By refining the ways in which cognitive processes are individuated, psychology enables us to achieve a more sophisticated measure of the reliability of various processes.

45On Kant’s view, the most basic level of representation would involve only mental constructions that were required for any representation at all (or the closest approximation to this state).

46I am grateful to Henry Allison, Lorne Falkenstein, Alvin Goldman, Philip Kitcher, and Derk Pereboom for very helpful comments on earlier drafts. My thinking about these issues was greatly clarified by discussions at Arizona, Colorado, Iowa State, Stanford, and Washington.

References


