

*Book Section*

*Review Essay:*

David Kelley's  
*EVIDENCE OF THE SENSES:  
A REALIST THEORY OF  
PERCEPTION*

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**T**his is an important book. This is so in spite of the fact that the publisher, Louisiana State University Press, is not one of the major academic presses, and in spite of the fact that Kelley is not a name known everywhere in the Anglo-American philosophical world. The importance of the book has three sources. First, it is a defense of a striking proposal—what Kelley calls the “realist theory of perception”—that is sharply out of tune with conventional wisdom in Modern philosophy. Second, it had its origin in a dissertation from Princeton, supervised by Richard Rorty; for some time, Kelley’s work has been known, mostly by word-of-mouth in libertarian-philosophical circles, as a professionally competent defense of epistemological theses originating with Ayn Rand. Third, apparently because of Kelley’s participation in cognitive-science colloquia at Vassar, this volume has come to have a life of its own in “artificial intelligence” circles: there have been lively debates about it on “ai.phil”, one of the electronic news services used by AI professionals.

Beginning with Plato and Aristotle, and including such philosophers as Aquinas and Kant, it is a well-known phenomenon that most epistemological and metaphysical theories (at least for major, speculative philosophers) have had behind them complex, and sometimes obscure, political, ethical and religious (or anti-religious) agenda. This is not to accuse these philosophers of being “biased”, or to accuse them of the presentation of sophistical shams in order to lay a foundation for their *real* theory of politics, ethics or religion. It is rather merely to be “adult” about where human interests really lie, and where the energies of philosophical expositions are—in the case of most better philosophers, at least—ultimately directed.

*The Evidence of the Senses* falls within this category. Behind the apparent preoccupation with “merely” epistemological foundations, lies a concern to set the stage for certain political and ethical theses. This agenda is apparently an Objectivist one, following roughly the lines of Rand’s well-known but much-disparaged theory of individualism. Kelley is not in the least heavy-handed in showing how his epistemological theories are intimately tied to certain ethical and political claims. In fact, to do so might for some impatient readers constitute a *reductio ad absurdum* of the narrowly epistemological claims, which are clearly deserving of a fair-minded hearing, irrespective of the ethico-political Weltanschauung that inspired them. But neither does Kelley try to conceal his agenda, which is made clear in the Preface and in occasional remarks in the text. There might nevertheless be the temptation to say of a book such as this, especially when one is accustomed to the distinctly American style of philosophizing in which one *never* shows one’s real agenda—the phrase “neutered philosophy” comes to mind—that one sees in works of Quine, Goodman, Kripke or Chisholm, that it is “biased” or violates the canons of good philosophical taste. But the American philosophical preoccupation with hiding one’s wider agenda—or worse, of never having one—is the exception and not the rule in the best work in the history of philosophy. It is perhaps best seen as a peculiarly American habit of (intellectual) personal cleanliness—on a par, vis a vis the Europeans, of making certain that our bodies never have a distinct smell, preferring either a total absence thereof, or the scent of flowers. Kelley’s work thus does not fall neatly in line with the best recent American philosophy, but rather—in at least the respect of its admitted wider agenda—with the best philosophy in the wider sense.

Having said this, and also admitting both that I am not irrevocably hostile to its background agenda and that I find some sections of the book first-rate, I do not think it is a very good book. It is murky at precisely the places where clarity is absolutely necessary. At other places, it comes dangerously close to begging the important question (i.e., in its definition of perception). Although far more nuanced and literate in its treatment of certain difficult philosophical issues, as well as of major philosophers whose views are strongly rejected (e.g., Kant) than one finds in the work of political cohorts (such as A. Rand and L. Peikoff), it nevertheless is occasionally naive to the point of being ignorant. Finally, I find the preoccupation with the themes of certainty, perception and knowledge among philosophers such as Kelley and even Rand, ostensibly so devoted to human “action” and initiative, to be perverse. Of the bidirectional interaction between an individual human being and the “external” world, knowledge and perception is the hopelessly passive direction. In fact it is Kelley’s main aim to demonstrate just how passive and non-creative perception and knowledge are. Where is the individualist theory of human action? As almost an observation about literary style and rhetoric, I conjecture that no tome on realistic epistemology can animate vig-

orous, individualist *anything*. The epistemological stress on passivity in such a theory is horribly at odds—as a “literary” theme—with the main focus on vigor and self-development central to the individualist ideology.

### DESCARTES, KANT AND “REPRESENTATIONALISM”

As I have already indicated, Kelley gives us a relatively fair and sophisticated picture of “enemies” of the thesis he wishes eventually to advance, such as Descartes and Kant. The contrast here is with Rand, whose comments on these figures could at best be described as “pithy” in their brevity, and at worst as casual or cavalier. Comparison of Kelley’s work with Peikoff’s—who was obsessed with showing the origins of Naziism in Kant’s philosophy—is thankfully impossible.

The view Kelley traces to Descartes, and which he then wishes to pin on almost all of Modern philosophy is termed *representationalism*. It perhaps can be seen as having reached maturity in the works of Brentano and Meinong, and interestingly forms the basis of much research being pursued in artificial intelligence along the direction of “cognitive modeling.” Representationalism is the view that, whenever we have thoughts about the world, presented to our thought is an object—a representation—that can be metaphorically seen as a “picture” of the (real) world “outside” of us. Modern philosophy can then be seen essentially as a discourse on how exactly a representation arises and of what it consists (e.g., sensations), of how reliable it is, and of how much it is “like” the external world of which it is a “picture”—or even of whether there is an external world. The primary, direct object of experience, thought, and awareness is therefore, according to this picture, the representation (variously called the “idea,” the “phenomenon,” or the “thought-object” by Modern philosophers). The “external world” outside of the perceiver’s mind and/or body is then at best *indirectly* experienced or inferred—perhaps not reliably (Kant), and perhaps only mythically (Berkeley). One principle question is then how much of a representation is determined by the perceiver’s “mode of cognition,” and how much is determined by the “real object” in the external world “causing” the representation.

Even in his exposition of representationalism, one can easily guess what Kelley’s point is going to be. Perhaps awareness and thought are not “of” representations, but “of” real objects themselves. That is, perhaps the Cartesian model of directly being aware of representations, and only indirectly (or inferentially) being aware of real objects is fundamentally incorrect. Although Kelley only later drives home the point, the suspiciously simple dichotomy between “correspondence” and “coherence” theories of truth is itself predicated upon a representationalist model. Namely, in the correspondence theory, the question is the extent to which our representations are “like” reality. But as noted by Berkeley, and observed repeatedly since, represen-

tations and “real” objects are very little alike, and we are in any case never in a position to measure their similarity, lacking direct access to the latter, and, as Kant would observe, also lacking any concepts that apply to both. A coherence theorist is even more exclusively dependent on representations, since it is representations of some sort (ideas, thought-objects, sentences, whatever) that are judged according to their “coherence.” Kelley’s isolation of and arguments against representationalism, incidentally, are clearly inspired by similar observations made by his teacher, Richard Rorty, in *Philosophy and the Mirror of Nature*.

In a matter strictly of historical exegesis, one is surprised to find the distinction—later in the book criticized as pernicious—between secondary qualities, perceived by one sense, and primary qualities, perceived by more than one sense, laid at the feet of Galileo (because they are not quantifiable like size), and having still more dubious origins in the complaints of “Greeks” (p. 17) that qualities such as those of taste and smell are notoriously subjective. One is puzzled by remarks that Locke accepted the Galilean view that secondary qualities were “subjective.” This was hardly Locke’s point. What is disingenuous here is that roughly the distinction between secondary and primary qualities was also made in the Aristotelian tradition as one between the “particular” and the “common” sensibles. (Kelley later even refers to it.) But of course Aristotelians are the good guys here, and mentioning their distinction would have muddied the critique of Locke et al.

Most bizarre perhaps is the handling of Kant. Kant’s main theses are in fact treated quite clearly and precisely. “There are noumena outside consciousness, and they serve as the perceptual trigger (Kelley carefully avoids ‘cause’ here) for the response of the perceptual faculty, but they do not determine the content of its response”—i.e., they do not determine the representations. And so on. But what of Kant’s *arguments* for his position? Elsewhere, Kelley brings forth and attempts to rebut the usual arguments from dreams, bent sticks in water, hallucinations, perceptual relativity, brains in vats, and so on—the tiresome stock of tricks of the epistemological trade invoked since Plato—that perceptions are not “reliable.” But of course Kant never uses one of these examples. His main argument is instead an extensive and subtle argument based on our conceptions of space, time, and cause. Without reading Kant, a glance at the table of contents of the *Critique of Pure Reason* will tell one this. Kelley has only one thing to say of Kant’s main argument for his position (and perhaps his supreme intellectual accomplishment):

What is the basis of this view? Kant offers various reasons in the *Critique of Pure Reason* and elsewhere for regarding space and time as forms of perception; they derive from the intricacies of an eighteenth-century debate about the nature of space and time. But the fundamental reason for his distinction ... [lies elsewhere].

What is Kelley's point here? That Kant's observations about space, time, and cause are now old-fashioned arcane and that the nature of each is now well understood? If so, Kelley is profoundly uninformed. Throughout *Evidence of the Senses*, there is not a hint of the profound difficulties that still infect our understanding of these concepts (whether in philosophy or in the empirical psychological literature Kelley often cites). Kelley takes the common-sense understanding of them—whatever that is—as well-defined and perfectly usable in scientific explanation itself. He then shifts the discussion away from the role space, time and cause play in experience of the world to the exceedingly simple-minded world of the perception of middle-sized objects (which Kant never deigns to address). Reflections on the concepts of space, time, cause and free will build the only arguments one sees in the *Critique*. If Kelley does not understand what these arguments are, he should bow out of historical criticism.

### THE PRIMACY OF EXISTENCE

Against all the representationalists, but especially against idealists of all stripes, Kelley proposes a thesis that he terms the "primacy of existence"—a phrase used with mind-numbing frequency in some Objectivist tracts, but here made comprehensible. This is the thesis that "consciousness is radically noncreative, radically dependent on existence for its contents." Now, the 'radically' here suggests that consciousness/awareness is *never* creative, which is an implausible claim we will later have to examine. But quibbling aside, and following upon his exposition of representationalism, Kelley's presentation of this, the core of his "realism", is not unattractive. He is also extraordinarily cautious to note that this thesis cannot be the conclusion of an argument, but rather "must serve as an axiomatic foundation for any inquiry into the nature and functioning of our cognitive capacities."

So far, so good. But then comes an argument with the primacy of existence as its conclusion. Namely, Kelley does a phenomenological analysis of his experience of sitting at his work table: "When I reflect on my awareness of [the desk, typewriter, etc.], I am aware of it as something completely noncreative, merely a revelation of what there is." (p. 31):

I am aware of [my awareness itself?]  
as non-creative.  
Therefore, awareness is non-creative.

From a similar phenomenology argument, Kelley later concludes that perception is "non-inferential." But there is a terrible non sequitur here. Can something be creative, yet we are not aware that we are "creating" it? Can we make an inference, yet not be aware of so doing? If one means by "create" *intentionally* create, or *intentionally* infer, then of course not. But saying that we are certain we do not intentionally

create our environment, or that we are certain we do not intentionally infer anything when we perceive an object before us, does not serve to establish that some element of our consciousness is not making a contribution to our awareness. So these, and additional points about non-creativity, (intentional) inference, (intentional) computation, and so forth, miss their mark entirely. Just because we do not “feel” our creativity hardly implies that our consciousness is making no contribution and that reality “determines” the content of our consciousness—this is a point about the phenomenology of experiencing creativity. Harking back to an earlier observation, we lack a theory of human action, and what it is to experience something as an intentional action, and the result is a pretty hopeless muddle.

### DIRECT AWARENESS AND CAUSAL DISTANCE

Kelley does an excellent job of exposing a myth concerning “direct awareness” that has obscured a number of issues in the theory of sensation and perception. The myth goes something like this. For awareness to be direct, the causal path between mind and external object must “short”; otherwise we have a case of indirect awareness. Since Kelley also wants to argue that perception is direct awareness of an external object, he must either show that the causal path is indeed short, or that “causal distance,” as I have called it, is irrelevant. He takes the latter approach.

That is, Kelley argues, persuasively I think, that it is not the number of causal links between mental event and physical object causing it that is relevant. He notes, for example, that there is no single measure of the complexity of a causal chain: one can describe a causal chain in almost any detail one wishes—depending, that is, on the state of science at that point in history.

Unfortunately, what Kelley does not tell us is what kinds of causal chains count toward a case of genuine perception. He says only: “Perception, then, is a unitary product of physiological causes.” Although the term ‘unitary’ is here significant, in contrasting his theory with sensationalism, requiring *physiological* causes seems trivial: any state of awareness whatsoever is presumably a consequence of *some* physiological causes (being physicalists about the matter). And certainly perception is not dependent only on the nature of the physiological causal chain: Is seeing a mirror image *perceiving* the object? Is seeing a TV image? A recorded TV image? A photograph of a person? Seeing a footprint of the person? A photograph of a footprint of a person? In the first two cases, Kelley gives an honest (and admirable) response: we are perceiving the object—so long as the object is sufficiently differentiated from its background. In the latter cases, which involve, among other issues, a time delay between the object’s causing a certain chain of events and my perceptual awareness, Kelley “bites the bullet,” admitting that an object need not now exist in order to be perceived. This is of course consistent with his view that the length of

the causal chain, however this is to be measured, is not crucial to perceiving or direct awareness.

The admission of time delays may, however, conflate memory and perception. For certainly, my now recalling seeing my car is little different from “long” causal chains by reflected images in which I “now” see my car as it was. There is a certain phenomenological difference that is *usually* present: namely, in the case of memory, I *decide* to recall. But then, I can decide to perceive, too—although what I perceive (just like what I remember) is not given by the mode of cognition. Memory is veridical, too. And then there are cases where I failed to *notice* something at the time I was sensing it: I now see my car keys dangling in the ignition. When did I perceive the car keys? They made no impact upon my awareness while I was in the car—so we cannot be said then to have perceived them. On the other hand, to say we now perceive them further blurs the edges between memory and perception.

But suppose we have a machine which, when a person is in its video-camera field, transmits an image of a black dot on a white background. Otherwise, the image is a diffuse white field. We know this. Now, when we see the black dot on the TV screen, are we perceiving the person? Kelley in fact has one escape from this dilemma. He might say that in the case as I have described it, there is conscious inference: I see the black dot, and intentionally, consciously infer that there is a person in front of the machine’s camera. But let us suppose that I have been trained for some time simply to judge that there is a person in front of the camera when the black dot appears. Inference is no longer conscious. (Just as a security guard, when he hears a burglar alarm, may no longer need consciously to infer that a door was opened.) I think Kelley would then have to admit that such a situation constitutes a case of direct awareness, of perceiving, the person. It is true that our justified perceptual judgments about the properties of the person is impoverished: we don’t know how he is dressed, the person’s gender, size, and so on. But this occurs in many cases of fog, poor angles and lighting, etc., in which Kelley admits we still have a case of perception of the person.

Kelley’s strangest remarks in connection with the theme of “directness” come in his discussions of inference and computation.

An inference requires knowledge of the connection between premise and conclusion, and hence an inferential view must explain this knowledge. (p. 78)

We can understand direct awareness only by contrast with knowledge that results from consciously directed processes of integrating information. (p. 68)

But [a number of authors] have merged the concept with the ordinary meaning of directness, by assuming that any processing of receptor responses must involve computation or inference.

It is clear on phenomenological grounds ... that perception is not the product of conscious cognitive processes which combine or interpret sensations.

The first quotation is multiply perplexing, not least because it is said in the context of discussing Helmholtz, who endorsed “unconscious inferences.” Certainly, unconscious inferences do not require *knowledge*—one is uncertain how seriously Kelley is using the word here, however—of connections between premises and conclusion.

In all three cases: inferences, computation, calculation, (as well as for the apparent genus “conscious cognitive process”), Kelley has not told us what he means. In fact the last quotation—“on phenomenological grounds” perception is not the product of “conscious” cognitive processes—is especially unhelpful, since of course we will not have phenomenological access to the *unconscious* ones, and by speaking of “conscious” cognitive processes, Kelley surely is admitting that there are some unconscious ones.

But Kelley is spinning a web that belies his lack of sensitivity to action-theoretic problems and from which he cannot extricate himself. Surely, the way we now speak and think implies that calculation and computation can be done “without consciousness.” This is what calculators and computers do. And then too, the tip off is not the phenomenologically question-begging issue of whether our awareness is “conscious” but whether it is done *intentionally*. All of these terms—computation, calculation, and even inference—have senses which indicate (intentional) *action*, and those which indicate mere “activity” or behavior. No one has ever argued that perception necessarily involves cognitive *actions*—intentional manipulation of sensory or other entities. Hence their lack of appearance in phenomenological analysis is nonplussing. But this is what Kelley imputes to his critics, and what he succeeds in refuting. The real problem is of whether there can be unconscious/unintentional calculation, computation or inference in any meaningful sense, and of whether such processes in the causal chain from external object to mental event disqualifies the resulting situation from being describable as *perception*. Can one come to be aware, without inference, that when the barometer falls, the sky is overcast? If so, is one thereby perceiving the overcast sky? I think such learned unconscious inference is possible. I balk, however at the claim that one thereby is perceiving the overcast sky. This is especially problematic when the learned and now habitual inference is inductively weak, or even invalid—but may in the case at hand have a true “conclusion.”

I myself have no easy answer on how to demarcate perception from other modes of awareness of the external world—memory, unconscious inference, etc. I do not exactly see the point, and I am certainly not so obsessed as Kelley with finding one mode of awareness that is necessarily (but perhaps definitionally) veridical.

## PERCEPTION

Before turning to perception alone, I want to make only a couple of observations about the generally excellent chapter on the relation between perception and sensation. Here, Kelley argues that perception of whole objects, distinguished against a background, is our normal mode of experience, and that what philosophers have called sensation (the awareness of sense data) is a chimera, or occurs only in severely impoverished perception. This general point has of course frequently been made against sensationalism, but I know of no single source that presents such an extensive barrage of arguments against sensationalism as does Kelley. The use of contemporary literature from psychology and cognitive science is especially devastating.

But the weakness in this chapter is again partly one of the interpretation of historical sensationalism. What is this view? Roughly, of course, that any perception is analyzable as a complex of sensations. Much of the evidence Kelley gathers refutes the thesis that our own perceptual objects are phenomenologically experienced as sensations. Rather, perceptual objects are experienced holistically. He also refutes the claim that the development of "normal" perceptual objects arises from the initial awareness merely of sensations, whence one learns to assemble sensations into perceptions, never again attending to the parts that once went into making our first perceptual objects. But there is a far more slippery sensationalist theory that Kelley seems to have few weapons against: sensations form the theoretical *foundation* of perceptual objects. It is, of course, unclear what exactly such a "foundation" is, or why one should want one. But such a theoretical twist makes Kelley's sometimes banal use of phenomenological observations irrelevant. Namely, the fact that we can't find pure sensations in our consciousness counts as little against sensationalism as our inability to "see" a perfect triangle counts against Aristotle's philosophy of mathematics.

But let us now turn to the central point of Kelley's book. What is the "realist theory of perception" that he defends? This is more difficult to say than one would hope, for Kelley oddly is not given to single clear statements of his main positions; he is at his best on the attack. Saying, "Perception is always of existence/reality" comes close. So, interestingly, does saying, "Perceptual judgments are never mistaken." This last assertion is of course especially curious, and requires us to turn to Kelley's analyses of "illusions" such as a circle that appears as an ellipse or, still better, a stick half-submerged in water that "appears" bent. In both the case of seeing the stick out of water and then half-submerged, I think Kelley wants to say, we perceive *the stick*. Otherwise, it is not a case of *perception* at all. Kelley goes on: "The normal look of the stick and the refracted look are simply two different forms in which one can perceive the same external attribute." This external attribute is "the" shape of the stick. Perception now is not just *of a stick*, but rather of a stick in relation to a background—i.e., whether it is all

exposed in air, or half-submerged in water. Perception then is of a relational fact: the stick exposed, or the stick half in water (or, in the case of a circle, of the relational fact formed by the circle and the angle it is being viewed at). Mistaken "perceptual" judgments are then falsely abbreviated judgments about a necessarily veridical percept; "there is no such thing as a nonveridical percept."

My reply to this maneuver is as follows. This is all well and good. You may indeed define for your own purposes, the perceived (the percept) as that which cannot be mistaken. The perception of a stick is "what is common to all appearances of the stick, caused by the stick"—at least those in which it is distinguished at all from its background, to avoid (perhaps in an ad hoc way) *anything* appearing like the stick in suitably bad lighting, etc. But then it is our (abbreviated) perceptual judgment that can be mistaken. Whatever harm—whatever lack of certainty, unreliability, etc., that perceptual relativity formerly injected into your agenda—is now caused by the unreliability of perceptual judgments: how do we know they are correct, reliable, etc.

In fact, Kelley comes dangerously close to, if not actually succeeding at, trivializing his entire enterprise. He writes:

Perception should not be defined, then, in terms of a genus that includes hallucinations and the like, as if these were phenomena on a par with perceiving. It should be defined as a type of awareness of external objects, to be contrasted with other types of awareness. (p. 143)

But then, when is one certain that one is *perceiving* an object, and not in another type of awareness? Kelley's point is, of course, not a new one. It is that perception is a "success" word, like seeing and hearing. One does not say one *saw* a lake that was not there; one says one *appeared to see* the lake.

But co-opting the word 'perception' for veridical awareness of a certain type (apparently just "when the awareness is a unitary product of physiological causes," p. 80), does not give us an *interestingly* realistic theory of perception. It gives us a theory of perception that is "realist" *by definition*. The main difficulty for such a tautologous realist is then to decide when he is really perceiving an object, and when he is in one of the other states of awareness. How does he test whether he is *perceiving* the object? He must determine that his awareness is physiologically caused by an external object. This itself requires perception—never mind the problem of ascertaining that the object is "external", consider only the problem of determining when one's own awareness is "physiologically caused."

### A NON-TRIVIAL REALISTIC THEORY OF PERCEPTION

In spite of numerous compelling claims about sensation, sensory objects, perception, and representations, I think that Mr. Kelley's

main case for perceptual realism is embarrassingly trivial. Can any case be made for a perceptual realism? I think so, even if this realism is not so strong a version of realism as Mr. Kelley would like. Let us consider a number of theses about perception and the (external) world:

- I. The world is always exactly the way we perceive it to be.
- IIa. The world is never the way we perceive it.
- IIb. We cannot be certain the world is ever the way we perceive it.
- III. We can be certain the world is sometimes the way we perceive it.

(I) is the thesis Kelley attempts to defend. Given Kelley's notion of 'perceive', it is in fact a tautology. I use 'perceive' in the broader sense of being possibly non-veridical, i.e. as synonymous with "seem to perceive," or "appears." (IIa) is not an especially attractive hypothesis but, depending on what one takes to be the "way we (commonly) perceive it," the thesis might have been held by Berkeley or Leibniz. (IIb) is almost exactly Kantian Idealism. It intimates that "the world" (noumena) is very probably *not* the way we perceive it—e.g., in having no arrangement in time and space, no causal arrangement, etc. Although Kant does not emphasize it, it is just possible that the noumena have attributes that "mirror" the properties we experience them as having: they are numerically distinct, in "space", ordered in "time", etc. But his point is that we have no evidence that this is so.

I would like to sketch the beginning of an argument here that (III) is true, and that this is the best any sensible realist would want to do. I do so by showing that any argument for a position such as (IIb) makes at least one assumption that is equivalent to the negation of (IIb). That is, I suggest that all arguments in favor of (IIb) are self-defeating.

Consider the neurological discovery in the 19th century that was regarded (especially by Helmholtz) as a "confirmation" of Kantian idealism embodied in (IIb). This discovery is termed the "principle of specific nerve energy." The point is that the triggering of a given nerve ending, and the subsequent transmission of the nerve impulse to the central nervous system, tells the brain nothing about the specific nature of what caused the triggering. All that is necessary is a certain threshold stimulation—heat from a burner, an atomic bomb, or electrical stimulation applied by an evil scientist. The phenomena (what interpretation the brain puts on these received signals) need not bear any functional relationship to the noumena (what is in fact causing the neuron to fire). But is this evidence for (IIb)? Nerves, the brain, and what triggers neurons, are themselves perceptual objects, phenomena. Causal relations which the 19th century physiologists established are themselves phenomenal relationships among phenomena—established by experiment and observation. Thus belief in the principle of specific energy requires belief that something like nerves really exist and behave according to this principle. In short, the prin-

principle of specific nerve energy could be regarded as evidence for (IIb) only if one assumes that we are justified in believing what perception tells us about the existence of nerves and how they are stimulated—which is incompatible with (IIb).

Similar arguments can be made about conjectures that we are “always dreaming” or “always hallucinating.” Namely, the description of a single case of dreaming or hallucinating as non-veridical presumes a method (e.g., of perception) of describing what *is* the case, and of claiming that this is not what is dreamed or hallucinated. So the description of a single case of a dream or hallucination relies upon some method of establishing what *is* the case, contrary to (IIb). In short, we seem to have no tools to argue *for* (IIb)—no facts about nerves, dreams, or hallucinations—that we can reasonably use that do not presume the negation of (IIb). Ditto for brains in a vat. Although I will not here prove it, such reflections perhaps indicate that no direct evidence for (IIb) is possible, and that any alleged proof of (IIb) is presumably flawed along the lines I have indicated.

But as I observed above, Kant’s arguments for (IIb) do not invoke such “cheap tricks.” His argument is, roughly, that our conceptions of space, time, cause and free-will have characteristics that suspiciously smack of an “internal” origin in the mode of cognition. His precise argument is, for example, that the necessity—the a priori character—of certain judgments about space, time, etc. can, if not analytic, only acquire this necessity from “within.” Replies to Kant are of course possible along two paths: (1) space, time, etc., do not have these characteristics, or (2) even if they have them, this does not indicate an internal origin. Since Kant, and accelerated by the advent of non-Euclidean geometries, many writers have argued, for example, that the Euclidean conception of space does not have this suspicious necessity. But assertions about physical, a mathematically possible, or “scientific” space, and the desirability for science of non-Euclidean models, is irrelevant, since Kant was clearly concerned with perceptual, or “phenomenal” space. It has turned out to be quite difficult to show that this phenomenal space is not perfectly Euclidean; but then, it is also hard to show that it *must* be perfectly Euclidean. The mere discovery of non-Euclidean, non-Archimedean or non-three-dimensional spaces has of course been taken as evidence against Kant. But this is a hopeless position, since if Kant had believed that Euclidean geometry were the only consistent geometry, then he would presumably have accepted its analytic character, and been lacking an argument that the necessity of its Euclidean character were at all “suspicious.” I think the flaw in Kant’s argument is probably in (2): that whatever “unusual” characteristics—such as of a “necessity”—space may indeed have, this alone does not show that such a characteristic can only come from internal sources peculiar to the mode of cognition of any perceiving creature. Reflection on other forms of necessity, such as physical necessity, show the possibility of conceiving of, and even endorsing, an a posteriori necessity. I do not have room here

to argue for this thoroughly Aristotelian position, but perhaps the mere isolation of this inference in Kant's logic, and the gesture in the direction of the possibility of "internalizing" a perceived, a posteriori necessity gives an indication of the direction of a possible argument.

I have also not argued directly for (III). I have rather argued that arguments for (IIb) are flawed. I do not have—and possibly there cannot be—strong, direct arguments for (III). At this point I endorse Kelley's cautious assessment of any such principle as necessarily an *axiom*. *Vis a vis* (I) however, I regard my (III) as on much stronger footing. Certainly it could be true when (I) is not, but not vice versa. I suspect, as in Kelley's case, that the only case that can be made for (I) is hopelessly question-begging. What is more, I do not see the methodological reasons for assuming (I). I *do* see a reason for assuming that some of our perceptions are indeed veridical, even when we cannot ascertain which. My methodological reasons are directly analogous with those we might have for endorsing the negation of the Principle of Universal Causation. Admitting there are uncaused events in theory is harmless. Admitting that *this* event is uncaused is pernicious, because it will lead us to abandon any search for a possible cause. It damages our incentive, our emotional motivation, for searching.

## CONCLUSION

My strongest reasons for complaint against Kelley's in places quite observant book harks back to my mere "stylistic" complaint. There is an emphasis, an obsession, with demonstrating the essential (epistemological) passivity of human life. This is radically out of tune with the "spirit" of individualism. What is needed as an antidote is a philosophically well-developed theory of the "active" portions of human life: planning, deliberating, intending, acting, in short, a respectable, modernized theory of practical reasoning in the sense of Aristotle. Bizarrely, one might note that Marx observed this over a century ago, and his successors have "capitalized" upon it, while his individualistic competitors have set out to show the passivity (Rand/Kelley) of the human mind, or the rule-governed, generalizably merely calculating nature of action (von Mises/Friedman). This is all quite unhealthy, and concedes far too much intellectual-rhetorical ground to the undeserving, non-individualistic opponent.

In Aristotle's work, but in hardly any other philosopher's since, we see due attention being given both to "speculative" and to practical—that is action-directed—reason. Indeed, the standards of speculative reasoning, such as the standard of certainty being applied, is necessarily conditioned for the rational acting agent by the place such judgments might occupy in action. One does not require, in order to make a choice between peas and carrots, absolute certainty about which is more nutritious—especially when the cost in such a trivial matter is excessive, e.g., as in the case of Buridan's Ass, postponing either action indefinitely. The *essential* action-directed nature of human ac-

tion, and ultimately of all reasoning itself, *pace* old saws about “knowledge for its own sake,” makes the appropriateness of a tool, standard, or inference pattern in speculative reason (as well as the reliability of information from any mode of awareness, such as perception), ultimately dependent on the place its product is to occupy in some chain of practical reasoning. It is for this reason that the standards of certainty demanded, say by Plato or Descartes, are excessive. We play a game as if there were some possible action for which *complete* certainty were required. Playing this game, perception and most forms of awareness and thought-transformation—perhaps logic itself—come up short-handed. But then, it is a frivolous and pretentious game, for there is no action for a rational person that requires such high standards. Not even the preservation of one’s own life, or of all of human life, is such a solemn end, as our automobile, eating and political habits seem to demonstrate.

My guess is that Aristotle, among very few philosophers, sensed this: the place of speculative reason with respect to practical reason, and thence the role that certainty plays in rational thought in the broadest sense—conceived as guide to action. If anything like this is so, then the approach of Kelley and Rand is fundamentally misguided, an attempt to play the “certainty” game that they will necessarily lose. Namely, they accept the demand for the chimeral absolute certainty arbitrarily imposed by our high-minded forbears, and try to show how some desperately-sought form of awareness meets it. What is needed however, is not some further development of the branches of philosophy devoted to speculative reason (epistemology, perception, inference, etc.), but of those devoted to practical reason—of action theory, a theory of deliberation, of intentions (their nature and origins), and so on. It is the development of this wing of philosophy, beyond where Aristotle left it millennia ago, that will both reinfuse philosophy with the theme of vigor and not of passivity, and put the numerous demands for certainty in their place. The last decades have indeed seen the awakening of interest in these substantive areas, finally acknowledging, one might say, Marx’s claim about the sterility of merely “describing” the world. The names Harman, Bratman, Brand, Castaneda come to mind. So too does recent work in cognitive science and artificial intelligence. But I think much work needs yet to be done before we will be in a position to assess the full “transaction” between world and human being, a word with which Kelley himself thrillingly launches his book (p. 1), but which for him turn out to be nothing more than the traditional languid one-way street of influence of the world upon us.