

EVIDENCE AND JUSTIFICATION

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It is possible to be in Duluth without knowing you are in Duluth. You might be lost. It is possible to speak prose without knowing you are speaking prose. You may be unaware of your verbal prowess. It is possible to be angry without knowing that you are angry. Denial is a robust human practice.

But is it possible to know something without knowing that you know it? It's easy to see how one might unknowingly be in any of the other conditions. We are not omniscient, and facts do not reveal themselves to us automatically, even facts about ourselves. But knowledge is a cognitive state, and one might expect it to exhibit a little more transparency. Can one be aware of a fact and be unaware of one's awareness?

This question is a hardy perennial in epistemology. In recent years the debate has shifted to a related but narrower question suggested by the traditional definition of knowledge as justified true belief. Justification is required to distinguish knowledge from a lucky guess that happens to be right; a justified belief is one supported by evidence, by reasons. So the narrower question is: can one be justified in believing a proposition p without knowing that one is justified? Or narrower still: can one be justified in believing p without being justified in believing one is justified? The opposing answers to this question bring out two rival conceptions of justification and of the nature of epistemological principles.

On the *externalist* conception, justification means being in a position to know. Knowledge differs from a lucky guess in that the knower stands in the appropriate relationship to the fact which is known. It is this relationship that makes a belief nonaccidental, non-arbitrary, hence justified. Whether or not one is in this relationship is a matter of fact. It does not depend on the knowledge of one's cognitive situation. Epistemological principles identify the nature of the appropriate relationship to the world, and thus the necessary conditions for

justification. To be justified, one's cognitive state must satisfy these conditions, but this may occur without the reflective knowledge that one has satisfied them. There may be no reflective knowledge at all on the subject's part. "Justification" is a term that can be applied to a knower from the outside, so to speak.

The opposing view, *internalism*, is rooted in a conception of justification as rationality. Justification is a normative concept, which applies to our thinking insofar as it is voluntary and self-directed. We need epistemological standards that tell us what conclusions we ought to draw from a given body of evidence, and what evidence we ought to have to back up a given conclusion. But ought implies can. The standards must be applicable by the subject who is obliged to use them. They must be applicable from the inside, which is where the subject is. Any epistemological rule that is relevant to the justification of a given belief, therefore, must be such that the subject can determine, within the cognitive context in which he is entertaining that belief, whether or not the belief satisfies the principle. If a person is justified in believing p , it's in virtue of rules whose application to p is evident to the person, and he is accordingly justified in believing that he is justified.

Both externalism and internalism have a certain intuitive appeal. Yet each of them, taken by itself and carried to its logical extreme, lands us in a quandary. In the next section, I will review the essential problems that arise on each side. In the following section I will show how the problems may be avoided by adopting the Objectivist theory of knowledge that was originated by Ayn Rand.

1.

Descartes is the arch-internalist in the history of philosophy. We can see his project in the *Meditations* as the attempt to establish both a basic truth and the basic criterion of truth at a single stroke. To meet the skeptical challenge, Descartes offers the *Cogito* as a truth that is immune from doubt. When he later reflects on this truth, he asserts that what makes it indubitable is that he clearly and distinctly conceives it. In other words, what justifies Descartes in believing that he is conscious is the clarity and distinctness of the idea that he is conscious, together with the epistemological rule that clear and distinct ideas should be accepted.

This rule is applicable from the inside: the subject can determine which of his ideas are clear and distinct by inspecting the ideas themselves. Moreover, Descartes seems to be saying at the beginning of Meditation III that the validity of the rule can also be established from the inside. The status of clarity and distinctness as criteria of truth, he suggests, is self-evident. So it is possible from the inside not only to apply the rule,

but also to know that it is the right rule to apply. In this way, the nature of the justification Descartes has for believing that he is conscious guarantees that he is justified in believing that that belief is justified.

Descartes' search for a self-evident criterion of truth is motivated by the desire to put knowledge on a secure foundation, in the face of a skeptical attack. In contemporary terms, Descartes is a foundationalist -- at two levels. Substantively, the claim "I am conscious" is a basic proposition: it can be known without presuppositions; it is justified without any need for inference or support from other propositions. Methodologically, the epistemological principle "Clear and distinct ideas are true" is also basic. It does not need to be tested against any larger body of truths, or based on information about the nature and operations of our cognitive faculties.

As a result, Descartes is claiming to be non-inferentially justified not only in believing that he is conscious, but also in believing that that belief is justified. The meta-level knowledge has the same foundational status as the first-order knowledge. This double-decked foundationalism provides Descartes with a strongly normative epistemology. If epistemological principles are self-evident, they provide an Archimedean point from which we can evaluate the entire body of our knowledge. Science, mathematics, theology, history -- all must appear before this ultimate court of appeal before they can be accepted.

Abstracting from the details of Descartes' argument, we can see his position as an attempt to combine foundationalism with a strong form of internalism. The package may be formulated in terms of three theses:

- i) Certain propositions may justifiably be accepted on some basis other than inference.
- ii) The acceptance of a proposition p is justified in accordance with some epistemological rule R only if the subject has determined that accepting p does comply with R .
- iii) The acceptance of p is justified by R only if the subject is justified in accepting R as a rule of justification.

Thesis (i) is the central claim of foundationalism, thesis (ii) of internalism. Thesis (iii) is what makes Descartes a strong internalist, as well as a strong foundationalist. It implies that for there to be basic propositions, there must also be basic rules of justification, the acceptance of which need not be based on inference from other knowledge. The belief that thesis (iii) can be satisfied in conjunction with (i) is what gives Descartes' position its sweeping normative character. It implies that epistemological rules are prior to all other knowledge, and may thus serve as a final court of appeal for all knowledge claims.

Is it possible to accept his package in its entirety? Descartes himself

does not seem content to treat the criterion of clarity and distinctness as self-evident, for he goes on to seek a validation of the standard in God's veracity. "I must examine whether there is a God, and if so, whether He can be a deceiver; without knowing this, I seem unable to be quite certain of anything else."¹ Descartes' subsequent effort to prove God's existence relies on a number of premises organized as an inference, and this poses an obvious problem. If the meta-level belief that clear and distinct ideas should be accepted is justified by inference, and if the meta-level belief must be justified before any first-order belief is justified, then no first-order belief can be basic. Is this sort of problem inherent in the theses themselves, or is it an artifact of Descartes' system? Could we do better by replacing his rationalism with empiricism? Contemporary epistemologists generally agree that the problem is inescapable. The package is inherently unstable, and we must choose between foundationalism and internalism. Let us consider briefly how this antinomy has played itself out.

Most foundationalists have embraced some form of *reliabilism*, which holds that certain perceptual judgments about physical objects present to the senses are justified non-inferentially by the fact of being produced by reliable cognitive processes. When I look at a chair, the light it reflects stimulates my eyes, setting off a neural process that results in the judgment "That's a chair." In normal circumstances I would not be led to make this judgment unless there actually is a chair before me -- i.e., I would not make the judgment unless it were true. The causal mechanisms track the perceptual environment in a way that makes them reliable.²

It is irrelevant for reliabilism whether I know that my judgment was produced by such a process. I need not have any belief at all about the causes of my belief. What justifies the judgment is not some reason for thinking the process to be reliable, but the actual fact of its reliability. Reliabilism is thus an externalist theory of justification, justification from a third-person perspective. The epistemologist as an outside observer can assess the truth or falsity of the subject's perceptual judgment, and the reliability of the process that produced it. But the subject himself need know none of this. All that matters is that he actually be in the appropriate causal relation to the object of his judgment.³

It is at precisely this point, of course, that internalists object. If the subject is not aware of how his belief arose, if he knows nothing of the nature or reliability of the process that produced it, then from his standpoint the belief is arbitrary and unfounded. It has the same epistemological status as a conviction based on whim, hunch, or dogma. A person cannot be justified if the origins of his belief are entirely opaque to him. "Part of one's epistemic duty," argues Laurence Bonjour, "is to reflect critically upon one's beliefs, and such critical reflection precludes

believing things to which one has, to one's knowledge, no reliable means of epistemic access."⁴

The reliabilist picture, according to internalists, must therefore be modified, with results that require us to abandon foundationalism. For example, Bonjour argues that in order to be justified, a candidate basic belief would have to have some property *K* which makes it the kind of belief likely to be true. The property might be that the belief is about a physical object in the person's immediate environment, and that the belief is produced by the use of his senses operating in normal conditions. This is a reliable process. But the person could not rationally accept the belief, Bonjour claims, unless he did so in light of the fact that it has this property.

If such a belief is justified, therefore, the justification is inferential, the inference having the form:

Belief <i>B</i> has property <i>K</i>	
Beliefs of type <i>K</i> are likely to be true	
Therefore, <i>B</i> is likely to be true ⁵	

Note that the second premise in this inference is a general epistemological rule of justification. The inferential pattern of justification arises from the requirement that the person apply this general rule to his own case. In other words, Bonjour's argument rests on thesis (ii), which requires that the subject actually determine that his belief satisfies the relevant epistemological rules.

Thesis (iii), which says that the subject must be *justified* in believing the rules he applies, has also been used to attack foundationalism. To know that a certain process of belief-formation is reliable, i.e., that the beliefs it produces are normally true, we must rely on inductive evidence. We must identify past instances of beliefs produced by that process, and establish that all or most of them have been true. If the subject himself must do this, as internalism requires, then all justification is circular. Any perceptual judgment about the environment is justified inferentially by a general rule regarding the reliability of perceptual judgments, and any such rule is justified inferentially by induction from perceptual judgments. We are driven to the coherence theory as the only possible account of justification.⁶

If we adopt externalism, no such problem arises. The inductive evidence for the reliability of a certain process is part of the background knowledge of the epistemologist, something he brings to bear from the outside on the situation of a cognitive subject. This inductive data may consist of common sense observations about the operations of the senses. It may also include material from cognitive psychology and sensory physiology, as

well as evolutionary theories about selection mechanisms favoring reliable cognitive processes.

Where does this knowledge come from? Presumably it has a foundational structure; the epistemologist is a knower like any other. If we trace the epistemologist's theoretical beliefs about justification back to their sources, we come to a level of belief at which he is in the position of the lay subject: his belief may in fact be the outcome of a reliable process, but he does not yet know this. Such beliefs must be accepted before any knowledge about the principles of justification may be established. At this level, all we can say is that we have certain beliefs. We can describe these beliefs, and we can describe how they give rise eventually to meta-level theories about the process of first-order belief formation. Having accepted certain first-order beliefs as true, we can explain the emergence of higher-order theories about which processes normally produce true beliefs. But we can never *justify* the initial acceptance of the causally basic beliefs.⁷ The normative standards we derive operate within a wider background of belief that must simply be taken for granted.

Epistemology is thus naturalized, in the spirit of Hume. As a skeptic, Hume rejects the normative project of validating our knowledge. Instead, he adopts the descriptive project of identifying the psychological mechanisms that lead us to believe the things we do. The belief that a cause necessitates an effect, for example, is merely a reflection of the strength of a habit of expectation induced by repeated conjunctions of events. Similarly, Quine argues that there is no hope of establishing the rationality of our beliefs about the world on the basis of some foundational method or standard. Instead, we should use what we have learned from psychology to describe the processes by which we construct a picture of the world in response to sensory stimulation. Quine notes that this naturalized approach involves a switch in priority: "The old epistemology aspired to contain, in a sense, natural science; it would construct it somehow from sense data. Epistemology in its new setting, conversely, is contained in natural science, as a chapter of psychology."⁸ It does not provide a fundamental standard by which *all* knowledge may be evaluated.

In contemporary epistemology, then, we are offered a choice between naturalism and the coherence theory. The choice is set by the common agreement that no epistemological principle is self-evident. To validate such a principle, we must know that the cognitive processes and methods it prescribes will give us true beliefs. To know this, we must have an antecedent stock of true beliefs against which to test the principle. To preserve the foundational structure of knowledge, we must simply accept those antecedent beliefs as true, without requiring a justification for them, and thus embrace naturalism. If we do require a justification for them, we

must appeal to epistemological principles that rest on those very beliefs, and thus embrace a coherence theory of justification. On both views, our knowledge taken as a whole has a free-floating character. For naturalism, this results from the denial that justification goes all the way down. From our standpoint as knowers, our basic beliefs are a matter of happenstance. For the coherence theory, the free-floating character comes from the view of justification as a matter of the internal relationship among beliefs, rather than their relationship to the world. In both cases, our confidence in what we think we know is undercut by the consideration that had we started with a different stock of antecedent beliefs, we could have arrived at -- and been able to justify -- a different set of conclusions.

2.

I believe it is possible to avoid this free-floating character altogether. It is possible to formulate a foundationalist theory that is not naturalistic, and thus incorporates enough of internalism to assure us from the inside of our cognitive contact with the world, without committing us to any form of coherentism. The approach I have in mind is based on Ayn Rand's Objectivist theory of knowledge, and I have developed it in detail elsewhere.⁹ The basic principle of this approach is the primacy of existence: that the objects of knowledge exist independently of the subject, and that our cognitive faculties cannot in any fundamental sense originate their own contents. This principle, I have argued, is self-evident; it is the identification of what is given in our perceptual awareness of the environment. Thus cognition is not constitutive in the Kantian sense. But neither is it diaphanous. Cognition is a biological function performed by systems that have definite identities which affect the form in which we grasp objects and facts in the world.¹⁰ In what follows, I will briefly review the outlines of this approach, and then turn to the questions that concern us here: what is the basis of the epistemological rules governing the justification of belief? and in what sense, if any, must a cognitive subject actually employ these rules in order to be justified?

All of our knowledge rests on the evidence of the senses. Though issues of justification arise only for propositional contents that can be expressed as assertions, there is a more basic level of cognition, a purely perceptual level. A perception, as distinct from a perceptual judgment, is the direct awareness of an object present to the senses. The essence of this awareness is the discrimination of the object from its background. The objects we discriminate exist independently of our awareness of them, and we are aware of them as independent; their independence is given as part of the content of the awareness. Perception is a form of contact with the world, a real relation between subject and object, between the perceiver

and what he perceives.

Perceptual awareness is not transparent. For us to perceive an object, it must appear to us, and certain aspects of the way it appears are determined by the specific nature of our sensory apparatus and of the conditions in which it operates. There is no "right" way for an object to appear, by comparison with which we can say that other ways of appearing are false or illusory. Conversely, any mode of appearance that allows us to discriminate the object, or a given attribute, is a mode of awareness of that object or attribute. Even in unusual conditions, where we have experiences that we describe as illusions, the illusory character is the likelihood that we will make the wrong *conceptual* identification of what we perceive. But the perception itself is not false; it is the awareness of some object in an unusual form. There is no issue of truth or falsity at the perceptual level, and consequently no issue of justification.¹¹

Concepts are formed by grouping objects into categories on the basis of perceived similarities and differences among them. We abstract a common attribute from the different degrees in which that attribute exists concretely in the objects. This allows us to treat an entire class of things as a single cognitive unit. It allows us to recognize a new object as an instance of a category with which we are already familiar, and to apply to that object the knowledge we have already acquired about things of that category.¹² Both the formation and the application of concepts are integrative processes subject to error. At the conceptual level, our awareness of the world takes a propositional form, and such propositions may be true or false. The acceptance of a proposition must therefore be based on evidence that justifies us in judging the proposition true, and we need standards to determine how to assess evidence properly.

A perceptual judgment is based directly on perceptual awareness. We see an object and are visually aware of certain of its attributes. The perceptual judgment identifies the object conceptually, in light of those attributes. Thus the judgment is justified by an antecedent awareness of the object, but this mode of justification is noninferential because that antecedent awareness is not propositional.¹³ Perceptual judgments perform the epistemological function of putting the evidence of the senses into propositional form, and they serve in turn as premises from which further conclusions can be drawn. From there on up, reasoning and justification are inferential.

With this broad framework in place, let us now consider the status of epistemological principles. To understand their bases, use, and normative reach, we need to draw a distinction that is most easily seen in connection with inference.

To know a fact inferentially is to know it by means of its relationship with other facts. Those other facts are the evidence for the conclusion. I

judge that a certain stone will chip easily because it is slate. The fact that it is slate, together with the general fact that slate chips easily, constitutes my evidence. The form of my inference is deductive:

All slate chips easily

This stone is slate

This stone will chip easily

The two premises state facts. These facts are related to the conclusion through the logical principle: if all M are P, and S is an M, then S is P. Like the premises, this principle states a fact: the fact that contradictions are not possible. It identifies the nature of the relationship -- let us call it the evidential relationship -- that exists among the facts asserted by the premises and conclusion.

These facts, and the relationship among them, exist regardless of whether I know them or not. If I am not aware of these facts, then of course my conclusion is unfounded; I am not justified in accepting it. What justifies my acceptance of the conclusion is therefore not the evidence *per se*, but my awareness of the evidence. The concept of *evidence* refers to facts, regarded in light of their relationships to other facts we wish to ascertain. The concept of *justification* refers to our cognitive position vis-à-vis those facts.

We must distinguish accordingly between two kinds of epistemological rule. Rules of *evidence* tell us what sort of evidence is relevant to what sort of conclusion, by identifying the various types of evidential relationships among facts. Such rules include the principles of logic, inductive and deductive, as well as various specialized principles, such as the legal rules governing testimonial evidence. Rules of *justification* specify what a person's cognitive state must be if he is to be justified in accepting a conclusion. The most general of these rules is that one must be aware of evidence that supports the conclusion adequately. Other rules specify in more detail the form this awareness must take. For example, it is not enough to know the evidential facts if this knowledge is buried in memory and not actually used to support the conclusion. Again, a person is not justified if he has suppressed contrary evidence -- even if the conclusion is in fact true and is adequately supported by the evidence he cites.

Notice that rules of evidence do not make any essential reference to a person's knowledge, beliefs, or any other cognitive fact. They state relations among facts in the world; they are not reflective or meta-level principles. They do not depend on the specific nature of our faculties. Knowers with radically different faculties would still be bound by the laws

of identity, non-contradiction, and causality, and the canons of deduction and induction that are based on these laws. Rules of justification, on the other hand, do make essential reference to the person's cognitive state. That is precisely their function. The validity of these rules, accordingly, is derived from the nature and operation of our cognitive faculties. The reason we must rely on the awareness of evidence to support a given conclusion, for example, is that we cannot determine its truth or falsity by direct perception. That is a fact about the range of our perceptual capacity. Again, the reason we must not ignore contrary evidence, even when we have abundant confirming evidence, is that we are neither infallible nor omniscient; the only reliable method for pursuing truth is to integrate as fully as possible the entire context of our knowledge.

The distinction between the two types of rule applies also to perceptual justification. In this case we are dealing not with the inference of one fact from others, but with the transition from a perceptual to a conceptual mode of awareness of the same fact. When I look at a table and form the judgment "This is brown," the judgment refers to the very thing I see, and it identifies in conceptual form the very color I am aware of perceptually. It is therefore tempting to say that the perceptual judgment does nothing more than formulate the cognitive content of the percept -- i.e., that we say just what we see, that the evidential relation between the content of the percept and the content of the judgment is one of identity. But this is not quite right. The judgment goes beyond the immediate content of the percept by assimilating the particular determinate color I perceive to the range of colors conceptualized as brown, on the basis of its similarity to other determinate shades within that range. Thus the evidential relation is one of similarity, and the general evidential principle is that the specific attribute perceived must be relevantly similar to the other instances of the concept being predicated.

What about the rules of justification? In *The Evidence of the Senses*, I discussed several rules specifying the nature of the perceptual contact with the object that we must have in order to be justified in forming a perceptual judgment. For one thing, we must perceptually discriminate the object that the judgment is about; we must actually pick out the object from its background, and not merely have it before us in our visual field. Again, we must perceive the object in the form of an appearance that is normal for the perception of F things, where F is the concept being predicated in the judgment. In addition, we are bound by the general epistemological requirement that we take account of contrary evidence -- in this case, evidence that the conditions of perception are abnormal. All of these are rules of justification because they make essential reference to the perceiver's cognitive state, and are based on facts about the way our cognitive capacities function.¹⁴

What are the implications of this theory, then, for the relation between foundationalism and internalism? In light of the discussion so far, it is clear that we may accept the first of the theses we attributed to Descartes: the foundationalist thesis that certain propositions may justifiably be accepted on some basis other than inference. Perceptual judgments play this role. What about the remaining two theses, which express Descartes' internalism? Thesis (ii) is that a subject is justified in accordance with an epistemological rule only if he applies that rule to his own case. Thesis (iii) adds that the subject must understand the basis of the rule; he must be justified in accepting it as a rule. To evaluate these claims, we must examine the bearing they have on the two types of epistemological rules we have distinguished.

Rules of evidence. It seems clear that for a subject to be justified in accepting a given proposition, he must have some grasp of the evidential relationship on which it is based. For example, he must grasp the connection between the conclusion that this stone will chip easily and the facts that this stone is slate and that all slate chips easily. If he knew the premises to be true but saw no relation between them and the conclusion, then his acceptance of the conclusion would be arbitrary. Similarly at the perceptual level. If the subject sees the table and its color, but is completely unaware of the similarity between that color and other shades of brown, he would not be justified in accepting the judgment that the table is brown.

Yet it seems impossible to know the principles of logical inference as they are formulated in logic texts, or understand the general relationship of similarity that exists among the instances of a concept, until one has acquired a good deal of other knowledge. These evidential principles are highly abstract. If grasping the connection between evidence and conclusion in a specific case requires the conscious application of these principles, there is no way we could grasp the connection at the foundational level. To remain foundationalists, we would have to embrace naturalism and hold that at the outset we simply do proceed cognitively in a certain way, and only later acquire the ability to explain -- descriptively, not normatively -- why we did so. On the other hand, to retain the view that justification requires a grasp of the relevant evidential relationships, we would have to hold that justification is possible only within a network that includes higher-order knowledge, and we would thus be driven to the coherence theory.

But the grasp of evidential relationships does not require the conscious application of evidential principles. This is obvious in the case of perceptual judgments. To recognize the table as brown, one does not need the concept of similarity; the actual similarity in color between the table and other brown things can be perceived.¹⁵ What about inference,

where the evidential relations are identified by logic? On the realist view I outlined above, logical principles are the abstract identification of certain concrete relationships that actually exist, independently of us, among specific sets of facts in the world. We can grasp these relationships in the concrete long before we learn the abstract formulations. Students in logic, for example, typically have some difficulty mastering the classical forms of categorical syllogisms and the rules for their validity. But they have no trouble seeing that if all slate chips easily, then if this stone is slate it will chip easily. The logical relationship among these propositions is so obvious that the conclusion hardly seems to them a distinct proposition. And when they do learn the validity of the abstract form, they experience it as something they knew all along.

At root, what it is that they "knew all along" is that contradictions are impossible: that to exist is to have a non-contradictory identity. This fact is true of existence as such. It does not depend on the specific attributes a thing has. Nor does knowledge of the fact depend on prior knowledge of any specific attributes, much less on knowledge of the way our faculties operate. To understand the laws of identity and non-contradiction in their abstract forms, one must reach a certain level of conceptual sophistication. But the basis for recognizing the truth of the laws is available at any level, so long as one is aware of something. The truth of the laws is implicit even in perceptual awareness, which necessarily involves discrimination: to perceive is to be aware of an A distinct from its non-A background.

In regard to rules of evidence, then, we may accept the spirit if not the letter of theses (ii) and (iii). At the foundational level, we do not consciously apply the rules, nor can we articulate their bases. But we are aware of the evidential relationships that make these rules valid, and our judgments, to the extent that they are justified, rest on that awareness. We may thus avoid naturalism as well as the coherence theory.

Rules of justification. The principle of the primacy of existence implies that the primary focus of awareness is outward, on the world. We must perceive external objects and their properties before we can turn our attention to the fact that we perceive them. "A consciousness conscious of nothing but itself," Ayn Rand observed, "is a contradiction in terms: before it could identify itself as consciousness, it had to be conscious of something."¹⁶ The implication is that rules of justification cannot be understood or applied in any sense at the foundational level. These rules make essential reference to our cognitive state in relation to the evidence for a judgment; their validity rests on facts about the nature and operations of our faculties. We must use our faculties to acquire some knowledge of the world before we can acquire meta-level knowledge about their nature and proper use.

The rule that we must take account of evidence that conditions of perception are abnormal presupposes the ability to distinguish normal from abnormal conditions, which presupposes knowledge of the fact that certain physical factors affect the way things appear; and this last is a causal generalization that rests on a host of prior observations about things. Even the most general rule of justification -- that we must have evidence to support our judgments -- rests on the fact that our judgments are fallible. To know this we must know something about the ways in which our cognitive contact with the world can be broken.

In regard to rules of justification, therefore, we must reject the spirit as well as the letter of internalism. The rules specify the conditions that must obtain if one is to be justified in accepting a proposition. If those conditions obtain, then one is justified, regardless of whether one knows that one is. What matters is that one's cognitive state satisfies the rules, not that one knows, or is justified in believing, that the rules are satisfied. If in fact I have adequate evidence for a judgment, and am aware of the relationship between the evidence and the content of the judgment, and have not excluded contrary evidence from consideration, then I have done everything necessary to put myself in a position to know. I have grounded my judgment in the facts, regardless of whether I have the meta-level knowledge necessary to describe what I have done and prove *that* I am justified. A child of six can know perfectly well that his bicycle won't work, by inference from the fact that the wheel is bent, even though he is entirely innocent of epistemological knowledge and does not even possess the concepts of "justification," "evidence," "inference," or "truth."

At the level of perceptual judgments, the relevant rules would not be formulated or applied consciously even by an adult. Indeed, they hardly count as rules, since the cognitive operations they prescribe occur almost entirely automatically. Consider the rule that one must perceptually discriminate the object to which the judgment refers. In a typical perceptual judgment such as "This is a chair," the reference of the demonstrative subject is actually determined by one's perceptual attention; there is no chance here that the rule could be violated.¹⁷ It is only as knowledge expands beyond this level that we need to become epistemologically self-conscious. As we begin to integrate evidence on a wider scale, building conclusion on conclusion, the possibilities for error multiply, and we need to ask ourselves: Do I really know that what I am taking to be evidence is true? Is there anything else I know that bears on this issue? Do I have evidence that further evidence is available? Am I biased toward this conclusion? And even at this level, the reason for monitoring ourselves is to ensure that our judgments satisfy the applicable standards of justification. It is the satisfaction of the standards that counts. The purpose of thinking is to acquire knowledge, to find out what the facts

are. Success is measured by results, not by the degree or sincerity of our efforts.

In this respect, therefore, Descartes' project is ill-conceived. There is no need to apply and validate rules of justification at the foundational level; and there is no possibility that we could do so, because there is no way we could identify the nature of our cognitive faculties or their liabilities to error until we have already acquired a good deal of knowledge about the external environment. But this does not mean that we must abandon Descartes' normative goal: a justification of knowledge that goes all the way down, a set of epistemological standards to which all knowledge is subject. We need not accept the counsel of despair proposed by naturalism.

We do not begin as knowers with beliefs whose truth we must posit, without warrant, before we can develop standards for the reliability of belief-forming processes. We begin with the direct perceptual awareness of objects and their attributes; we notice similarities that allow us to form and apply concepts; and we are implicitly aware of the ontological facts that the principles of logic identify. Since we are capable of grasping facts, we are in a position to recognize errors when they occur, and thus recognize the fact of our fallibility. Since we are capable of identifying the nature of things in the world, we are capable of identifying the nature of our own faculties as things in the world, and of learning how to minimize the dangers of their malfunctioning. At each stage, from perception to concepts to the rules of evidence to the rules of justification, our conclusions are fully grounded in and justified by what came before. We cannot go back psychologically, taking with us only our epistemological principles, and actually relearn everything anew. But we can look back epistemologically, using the principles we have learned, and evaluate the whole structure of knowledge in a fully normative and noncircular way.

1. Meditation III, in *Descartes: Philosophical Writings*, ed. and trans., Elizabeth Anscombe and Peter Thomas Geach (Indianapolis: Bobbs-Merrill, 1971), p. 78. Note that this statement comes at the end of a paragraph in which Descartes allows that God could deceive him even regarding his own existence.

2. Reliabilism was initially formulated by David Armstrong in *Belief, Truth and Knowledge* (Cambridge: Cambridge University Press, 1973).

3. Cf. William Alston, "Has Foundationalism Been Refuted?" *Philosophical Studies* 29 (1976): 287-305, and "Two Types of Foundationalism," *Journal of Philosophy* 73 (1976): 1165-85. On the relation of externalism to reliabilism, see Alvin Goldman, "The Internalist Conception of Justification," in Peter A. French, Theodore E. Uehling, Jr., and Howard K. Wettstein (eds.), *Midwest Studies in Philosophy V: Studies in Epistemology*

(Minneapolis: University of Minnesota Press, 1980).

4. Laurence Bonjour, "Externalist Theories of Empirical Knowledge," in *Studies in Epistemology*, p. 63.
5. Cf. Laurence Bonjour, "Can Empirical Knowledge Have a Foundation," *American Philosophical Quarterly* 15 (1978), p. 7.
6. Cf. David Schatz, "Foundationalism, Coherentism, and the Levels Gambit," *Synthese* 55 (1983): 97-118.
7. Alvin Goldman, "The Internalist Conception of Justification," p. 46-47
8. W. V. Quine, "Epistemology Naturalized," in *Ontological Relativity and Other Essays* (New York: Columbia University Press, 1969), pp 78, 83.
9. David Kelley, *The Evidence of the Senses* (Baton Rouge: Louisiana State University Press, 1986). Cited hereafter as ES.
10. *ES*, ch: 1.
11. *ES*, pp. 81-95, 228-242.
12. Ayn Rand, *Introduction to Objectivist Epistemology*, 2nd ed. (New York: New American Library, 1990). See also David Kelley, "A Theory of Abstraction," *Cognition and Brain Theory* 7 (1984): 329-57.
13. *ES*, p. 197.
14. *ES*, ch. 7.
15. Rand, *Introduction to Objectivist Epistemology*, p. 14; Kelley, "A Theory of Abstraction."
16. Ayn Rand, *For the New Intellectual* (New York: New American Library, 1961), p. 124.
17. *ES*, pp. 211-13.