

Descartes' General Epistemology: A Contemporary Assessment*

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There is a broad distinction in Descartes' writings between doctrine and method. The staying power of these two elements has been unequal. Descartes' doctrinal influence on contemporary epistemology has been largely as a foil against which some of its major currents have been developed. The situation is brighter on the methodological side. Here Descartes' practice of beginning with common sense and moving, step by step, to philosophical conclusions is a practice much admired by contemporary philosophers. Still, the negative verdict on doctrine stands as the main verdict overall. I maintain that this verdict is undeserved.

I first distinguish between Descartes' general epistemology and the purpose to which he puts it—the quest for certainty. I then argue for a positive verdict for his general epistemology. I do so by showing that Descartes has a non-normative account of *knowledge* but an “ethics of belief” in which the knowing comes first. Descartes thus anticipates what Sylvan calls the “knowledge-first” approach in general epistemology, which I defend. Relying on Audi's distinction between “sources” and “reasons,” I show that Descartes' analysis of knowledge proper, which I also defend, anticipates and improves the “factive access” analysis of knowledge due to McDowell.

Keywords: general epistemology, analysis of knowledge, normativity, reasons, Descartes

Introduction

There is a broad distinction in Descartes' writings between attention devoted to doctrinal matters and attention devoted to method. The staying power of these two elements of Cartesian thought has been unequal.

Apart from skepticism, Descartes' doctrinal influence on contemporary analytic philosophy has been largely as a foil against which some of the major currents in contemporary philosophy have been developed: empiricism and materialism in philosophy of mind, the shift from ideas to language as the primary vehicle of representation and meaning, anti-foundationalism and anti-individualism in epistemology, a reversal of the epistemic priority that Descartes assigns between the knowledge of private thoughts and the knowledge of public objects—in general, the shift away from individual-subjectivism and a priorism to social-objectivism and naturalism, and the rise of interest in body-based and gender-based epistemologies. Even with skepticism and even with epistemologists sympathetic to its formulation in Descartes' writings the most that can be said is that Descartes' formulation acted as a trigger for further analytical development of the problem (Stroud, 1984);¹ Descartes' solution (depending on the existence of a perfect God) has had virtually no takers. This is so despite the fact that, among major works written by Western philosophers, Descartes' *Meditations* is perhaps the most

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¹ Stroud (1984, Chapter 1) develops a form of skepticism that closely follows Descartes' original formulation.

widely read by the educated public—not only widely read but widely understood in its main doctrines: skepticism (problem and solution); the theory of ideas including the theory of innate ideas, the cosmological and ontological proofs for the existence of God and, of course, “the cogito”. On the doctrinal side, unfortunately, the story is that familiarity has led to contempt.

The situation is considerably brighter on the methodological side. Here Descartes' practice of beginning with common sense and moving by steps, persuasive as well as logical, to philosophical conclusions is a model much admired by contemporary analytic philosophers. So too is Descartes' practice of eschewing reliance in his theorizing on pre-existing, obscure technical concepts in favour of the construction of clear analytical explications and common sense analogies. The clarity of Descartes' expositions stands out among those of early modern philosophers, indeed among those of any philosopher. So, there is much that an analytic philosopher will find to praise in Descartes' contribution to current practice.

Still, the negative verdict on doctrine stands as the main verdict taken by analytic philosophers on Descartes' overall significance as a philosopher. I maintain that this verdict is undeserved. My objective here is to demonstrate this for Descartes' epistemology—the positive epistemology rather than the problematic of skepticism—and to do so using two important movements in contemporary analytic epistemology as foils—non-normative naturalism and normative justificationism, the view that epistemic justification is a matter of epistemic agents acting in ways that promote some epistemic good of which they are aware or conform to epistemic norms of which they are aware. Consideration of space and focus prevents me from treating the important confrontation between Cartesian epistemology and social epistemology, including feminist social epistemology.²

Elsewhere,³ I have compared Descartes' conception of intuition with the corresponding notion employed by analytic philosophers. The former, “Cartesian intuition” as I call it, is a form of immediate awareness of facts or objects—not a kind of believing—whereas its contemporary counterpart, “doxastic intuition” as I call it, is a kind of believing. I maintain there that only the Cartesian notion has the connection to truth necessary for it is of epistemic value. Here, I give an interpretation of Descartes' general epistemology in the *Meditations on First Philosophy* (Cottingham, Stoothoff, & Murdoch, 1984; Adam & Tannery, 1964) and of his account of what it is to know something, “Descartes' theory of knowledge proper”, as I call it to distinguish it from his general epistemology”. I also compare and assess his account in relation to some of the main approaches in contemporary analytic epistemology since Gettier, focusing on the theory of knowledge proper.

The “Knowledge First” Property of Descartes' General Epistemology

Epistemologists standardly defined knowledge as justified true belief, so says Gettier in his famous paper published in 1963. He proposed that there are propositions which could be believed, be true, be justified, and yet not be known. These beliefs and the situations in which they arise are known as “Gettier examples”, counterexamples proposed to the standard analysis. There is, for example, the case of Mr. Smith and the 10 coins. Suppose that I know that Mr. Smith has 10 coins in his pocket and that the board of the company where I work is set to make Mr. Smith president of the company at 2 pm this afternoon. It is now 2:10 pm and so I come to believe, for good reason, that the president has 10 coins in his pocket. Let us say that this is true—the

² For a leading account of feminist social epistemology in the analytic tradition see Longino (1994, pp. 135-157). Reprinted in Crumley II (1999, pp. 156-169).

³ This discussion has been reprinted as a portion of Vinci (2016, pp. 578-581).

president does happen to have 10 coins in his pocket—but Smith is not the president after all—unknown to me, the board had a last minute change of heart. Now I have a belief that is not only true, but justified and yet, intuitively (this is doxastic intuition at work), we think that this is not knowledge. Why not?

One diagnosis has it that there is a proposition that I am assuming—*Smith is the president at 2:10 pm*—which is false. The fact that this proposition is false “defeats” my knowledge claim by preventing my justified true belief from amounting to knowledge in light of all the facts, known to me and unknown. So, we need to add to the three conditions of *justification*, *truth*, and *belief*, a fourth condition: The justification must be *undefeated*. The failure of this condition explains why I do not have knowledge that the president has 10 coins in his pocket. On this account, knowing is still based on the idea that justification is the *appropriateness* of belief on the evidence (Sylvan, 2018, p. 204)—it is appropriate on the actual evidence for me to believe that the president has 10 coins in his pocket but it would not be appropriate for me to believe that the president has 10 coins in his pocket on the actual evidence plus the statement that it is false that Mr. Smith is the president at 2:10 pm. Appropriateness is, of course, a normative property: A belief is appropriate if it is one that we should hold.

Another diagnosis⁴ has it that the problem lies not with defeated justification but with the lack of a causal connection between the evidence that I possess at 2:10 pm (my belief that Smith has 10 coins in his pocket and the other evidence) and the state of affairs which makes my belief true (the current president’s having 10 coins in his pocket). If we add a requirement that knowledge (at least empirical knowledge) must causally tie truth-making facts to the evidence on the basis of which I come to have true belief, then we can circumvent the counterexample. In this case, there is no causal connection between the belief that the President has 10 coins in his pocket and the fact which makes that belief true—the actual president, not Smith, having 10 coins in his pocket. Here what counts is the causal tie between fact and belief—and causal ties are non-normative, natural conditions.

There are many variations on these approaches, and there are other approaches altogether, but these will serve as examples of two important theoretical tendencies in contemporary epistemology that I want to bring into focus—*normative epistemic justificationism* (a form of “internalism”) vs. *non-normative epistemic causalism* (a form of “externalism”).

One of the central ways in which internalism is implemented in contemporary epistemology is by an adaptation of deontic concepts—concepts of permission and obligation governing action—to the field of epistemology. I take deontic concepts to be normative, though not axiologically normative (normative as a good-making property of beliefs), which they are in the case where justification is understood as rationality of belief, as it is in the standard, justified-true-belief account of knowledge as Gettier understood it. I will call the latter account “Axiological Epistemic Justificationism” and the former “Deontic Epistemic Justificationism”, both forms of Normative Epistemic Justificationism. Deontic Epistemic Justificationism is the approach taken by Bonjour (1985, p. 34), the leading idea of which is that there are certain obligations (responsibilities) that we have as epistemic agents to choose what beliefs to adopt only on the basis of evidence we are aware of. Externalists disagree, arguing that applying the term “knowledge that p” to a belief that p indicates that the belief was produced in the right way, however, well or ill, we may have carried out our epistemic responsibilities, if indeed, there are any such.

⁴ A good example of this diagnosis, published soon after Gettier’s paper, can be found in Goldman (1967, pp. 355-372).

(A third diagnosis of the failure to know in the 10-coin case is that the third condition, justification understood axiologically, is simply not strong enough for knowing—only if the third condition amounts to certainty do we have it. Since the most we have in this case, and in many other Gettier cases, is *probable truth on the evidence*, the beliefs in these cases all fail to be knowledge. The notion of certainty is, of course, important in Cartesian Epistemology but, I will argue at length below, it is not part of Descartes' theory of what it is to know something, strictly understood, that is, it is not part of Descartes' theory of knowledge proper).

Bonjour's case against externalism rests on a type of example involving clairvoyance. As representative of this type, let us take the case of a clairvoyant person, Sally, for whom a belief suddenly occurs, say that her friend's son has just died at that moment in a plane crash in the Andes Mountains. Now, the supposition of the example is that this did in fact happen, that its happening caused in some reliable way the belief by some means that does not include consciousness of the event itself or of any fact that might serve as evidence to Sally that her belief is likely to be true (An example of such a fact might be that she possessed a reliable power of clairvoyance in cases such as this). There are, in other words, no rational grounds consciously available to Sally to justify the belief that her friend's son has just died, so according to Bonjour, her assertion is epistemically irresponsible. Moreover, Bonjour claims that this is a case that must be counted as knowledge by externalists but is not, intuitively, knowledge. Since this is also a case where, intuitively, knowledge fails, Bonjour concludes that the absence of epistemic irresponsibility, that is, the presence of epistemic responsibility, is conceptually necessary for knowledge.

I agree with Bonjour's intuition about this case—it is not a case of knowledge—but not with his explanation. Bonjour says that Sally fails to know because she fails to act in an epistemically responsible manner. But this seems to me to get things backwards: Sally is acting irresponsibly—if that is what we think—because she affirms things that she does not know. What is primary here and comes first is the concept of knowing—the question of epistemic responsibility comes later. This is the “knowledge first” property of Descartes' general epistemology.⁵ In this respect, I think that externalists are right. Nevertheless, overall their account also is unsatisfactory since—here I agree with Bonjour—it is counterintuitive to call the clairvoyant case a case of knowing. The diagnosis of what has gone wrong here also depends on the fact that there is no awareness of evidence supporting the belief. I maintain that correcting the shortcomings of both the deontological justificationism of Bonjour and the non-normative causalism of his opponents' points in the same direction—to an elucidation of the role of intuition in epistemology, the best example of which we still find in Descartes.

Descartes' General Epistemology

What Is Knowing for Descartes?

To all appearances, Descartes' general epistemology centers on the “quest for certainty”. The failure to find certainty in the teeth of dreams and evil demons is then understood as establishing, provisionally, external-world skepticism—the thesis that we lack knowledge of the external world. To get this result, we assume that Descartes endorses a justified-true-belief account of knowing, with the justification clause

⁵ Sylvan called such a position, which he endorses, the “knowledge-first position” (Sylvan, 2018, p. 199). He cites John Cook Wilson (1926), H. A. Pritchard (1909) and H. H. Price (1932) as “early knowledge-firsters” (p. 204). Presently, I will argue that Descartes is an even earlier knowledge-firster, whose theory of what it is to know something is a paradigm of that view (A note on priority: This argument first appeared in Vinci, 2008, pp. 262-270).

interpreted as normatively qualified certainty. A modern version of this account is expressed in A. J. Ayer's (1956, pp. 33-35) analysis of knowing as having *the right to be sure*. On this view, Descartes' account of knowledge is a version of Deontic Epistemic Justificationism.

Now there is much in this reading that is sound—Descartes is concerned with certainty and he is concerned with epistemic obligations as they relate to belief. Moreover, one of his central epistemic notions is that of *scientia*—a scholastic term that is sometimes rendered in the Cottingham translation as “science”, sometimes more generally as “knowledge”,⁶—and it entails certainty. It is *scientia* which Descartes intends to undermine by his method of doubt⁷, *scientia* which is to be restored when the doubt has been banished. What has been restored is the right to be certain; so the status of *scientia* is achieved for a set of beliefs only when we have a right to be certain of them. That much, I think, is indisputable.

But I now wish to consider two additional questions: (1) Does the notion of *scientia* amount to *knowing* for Descartes? (2) Does the Cartesian notion of intuition amount to knowing for Descartes? I have argued elsewhere (Vinci, 2008, pp. 267-269; 1998, pp. 19-23) that the answer to the first question is “No”⁸ and to the second, “Yes”. What then is the difference between knowledge and *scientia*? Briefly, it is this: Intuitive knowledge is a primitive notion amounting to the presence to mind of a propositional content; *scientia* is having the right to be certain that I have intuitive knowledge.

What, then, is the “right to be certain” for Descartes? I will not attempt to answer this question for the kind of second order application at issue with *scientia* but will attempt it in the next sub-section for first-order applications.

The Central Principles of Descartes' General Epistemology

In Meditation IV, Descartes proposes a notion of *psychological certainty*: a strong inclination to affirm a proposition. A *right to be certain* exists when the inclination is actualized in accord with an appropriate normative principle. The contemporary notion of belief is best understood in Cartesian terms as an inclination to affirm a proposition, and inclinations to act in general are properties of the will.⁹ The appropriate principle is this: “If...I simply refrain from making a judgment in cases where I do not perceive the truth with sufficient clarity and distinctness, then it is clear that I am behaving correctly and avoiding error” (My emphasis, AT VII, p. 59; CSM II, p. 41). Identifying clear and distinct perception with intuition, I shall gloss this as the principle: *Affirm p only when p is the object of intuitive knowledge*. This amounts to a very stringent principle of doxastic responsibility¹⁰ to which Descartes is committed in his general epistemology but not in his theory of knowledge proper since this principle is not constitutive of knowing. Knowing that p, rather, is the condition that makes affirming that p epistemically responsible—knowing comes first. As we have seen in our analysis of Bonjour's clairvoyance case, this is as it should be.

This principle, which I shall call *Descartes' Doxastic-Responsibility Principle* is the second of three main principles of Descartes' general epistemology. The first is the Reality Principle, which I have discussed elsewhere (Vinci, 1998, pp. 9-19; 2008, pp. 256-258).¹¹ Here they are together:

⁶ For the former, see *Meditation I*, CSM II, p. 12; for the latter see the *Second Replies*, CSM II, pp. 100-101.

⁷ The word “sciences” in the first paragraph of Meditation I (CSM II, p. 12) is *scientiis* in the Latin (AT VII, p. 17).

⁸ Pace Cottingham. See CSM II, p. 101, Note 2.

⁹ Med IV: AT VII, pp. 40-41; CSM II, p. 28.

¹⁰ I am following Naamen-Zauderer (2010) in taking the view that Descartes' maxim is deontological rather than axiological.

¹¹ The account given here is simplified.

Descartes' Reality Principle

If someone has an intuition of a property P then there exists a substance S which contains P (The substance can be oneself).

Descartes' Doxastic-Responsibility Principle

Affirm p only when p is the object of intuitive knowledge.

Descartes' Doxastic Responsibility principle is a normative principle connecting intuitive knowledge and an inclination to affirm a proposition, part of what we might call Descartes' "ethics of believing". But there is also in Descartes a psychological principle bridging these same two things: "a great light in the intellect was followed by a great inclination in the will" (Meditation IV: AT VII, p. 59; CSM II, p. 41). Notice that here Descartes says "was followed" rather than "should be followed", so we must count this principle as part of a naturalistic psychology not as part of an ethics of believing (This principle does not say that the only cause of doxastic inclinations are acts of intuitive knowledge—other, more epistemically dubious, sources like sense experience can also create doxastic inclinations. It is to guard against following through on these inclinations that Descartes introduces the normative principle). The psychological principle can be stated thus:

Descartes' Psychological Principle

When someone S has intuitive knowledge of a certain content then S will come to form a strong inclination to affirm a proposition suitable to the content.

In the passage quoted from Meditation IV, Descartes does not say what content or proposition he has in mind but the antecedent of the Reality Principle says that the immediate content of an intuition is a property. Things work out nicely if we now suppose that the proposition "suitable" to the content is none other than that in the consequent of the Reality Principle, which I shall gloss here as the proposition that there is a substance that possesses the intuited property in some way. So, we intuit property P and then we then come to believe that there is something that possesses P in some way. But Descartes also says that there is no possibility of error for judgments of this kind (Med IV: CSM II, p. 39) Why not? Because of the Reality Principle. It asserts that whenever we have an intuition of P, necessarily the proposition *there is a substance that possesses P in some way* is true, and that proposition is very same as the one we are caused to believe by the intuition. So, beliefs that p that arise by the natural light is both caused, and their truth guaranteed (deductively), on the basis of intuition.

These three principles form the core of Descartes' general epistemology and it is on their basis that we come to know of the existence of all things, including God and the material world.¹²

A Contemporary Assessment of Descartes' General Epistemology

How does Descartes' general theory of knowledge fare in contemporary terms? I have already given a favourable assessment of the knowledge-first property.¹³

I propose to extend my assessment, first, by *translating* his theory of knowing proper into a set of necessary and sufficient conditions expressed in the language of contemporary epistemology; and, second, by

¹² Working this out in detail is the main theme of Vinci (1998).

¹³ This property of Descartes' analysis is also in Sylvan's analysis—the chief point of his paper, as the title suggests, is to establish this—and the argument I offer on Descartes' behalf for this property corresponds to the argument Sylvan calls "The Argument from Determination" (Sylvan, 2018, pp. 12-14). Moreover, the content of Sylvan's analysis is itself very close to Descartes (Sylvan, 2018, p. 24). However, Sylvan expresses no awareness of these similarities—Descartes name does not appear once among the 115 references in this paper. This is a sign of just how completely Cartesian epistemological doctrine has vanished from the contemporary philosophical scene. This is an injustice that I am attempting to correct with the writing of this article.

proposing a problem for an influential contemporary account of epistemic reasons due to McDowell, the solution of which is naturally available within Descartes' general epistemology.

Translation. Expressed in the language of contemporary Anglo-American analytic philosophy, I take Descartes' theory of knowing proper to be this:

Descartes' Analysis of Knowledge

S knows that p iff S has epistemically transparent factive access* to the fact that p, believes that p and is caused to believe that p by having that access.

(* "Factive access to the fact that p" is epistemic access that logically guarantees the truth of p, for example, seeing that p. in Descartes' case *transparent* factive access is intuition).

A caveat. Sometimes something is "lost in translation", here something is added: the clauses relating to belief. They correspond to the tendency to assert propositions. While this tendency is, indeed, an element in Descartes' general epistemology, his account of knowledge *per se* does not include it—knowledge *per se* is confined to intuition, "epistemically transparent factive access" as it translates here. Descartes' reason for excluding these tendencies from the analysis of knowledge *per se* appears to be that they fall on the side of the will rather than the side of perception; and knowledge for Descartes is a species of perception.¹⁴ If we translate Descartes' "tendency to assert a proposition" as the contemporary epistemologist's "belief", then we have Descartes maintaining not that knowledge that p is partly *constituted* by believing that p but that knowledge that p *causes* belief that p. While I do not think that this position is simply out of the question, it is quite (doxastically) intuitively anomalous, and I have not followed Descartes on this point in my translation of his analysis of knowledge into the contemporary idiom.

Assessment. Descartes' analysis of knowing is entirely non-normative. I take this to follow from the fact that all of the concepts on the right-side of the analysis are paradigm non-normative concepts. Because of this it is possible for Descartes to take a knowledge-first approach to epistemic normativity, an approach which I have defended above in the context of contemporary epistemology. But the non-normative aspect of his analysis also allows Descartes a way to resolve a problem which, I now argue, affects the account of epistemic reasons to be found in the work of McDowell, one of the pre-eminent epistemologists to be found in the contemporary scene, an intellectual heir to Kant and Sellars.

Here is a quote from McDowell (1996, p. 165):

Suppose one asks an ordinary subject why she holds some observational belief, say that an object within her field of view is square. An unsurprising reply might be "Because it looks that way." That is easily recognized as giving a reason for holding the belief. (as cited in Ginsborg, 2018, p. 108)

In this quotation, the perceptual reason is a fact about the way things appear to one, but

he [McDowell] makes it clear that it is not just experiences conceived of as cases of things looking a certain way, but also cases of their being seen to be a certain way—experiences factively described—which can be cited as reasons in this way. (Ginsborg, 2018, p. 108)

It is also necessary to note that reasons are understood by McDowell as occurring in "a normative context" (McDowell, 1996, p. xi, as cited in Ginsborg, 2018, p. 101). I will take the expression "I see that the object is square" to be a canonical formulation of a factive perceptual state (Ginsborg, 2018, p. 102)¹⁵ (This state is

¹⁴ See *The Passions of the Soul*, Part I, Section 17. At XI, 342; CSM I, 335.

¹⁵ There are some complications relating to McDowell's use of this formulation which I set aside here.

factive because seeing that an object is square entails that it actually is square).

There are circumstances in which expressing a factive perception that *p* is offering a normative reason for believing that *p*. Suppose that I am in a dispute with you from a remote location (over the phone, say) about whether there is a square object on our dining room table—I say there is not, you say there is. I now ask “How do you know?” and you reply: “I am in the dining room right now and can see that there is”. In a context, like this, there are two options for treating your reply as both informative and epistemically helpful.

Option 1: I have no reason to challenge your factive-perception claim and now accept it as a good reason for my believing that something square is on the table. From there, I go on to justifiably form a belief that there is a square object on the table on the basis of a deductive rule of acceptance.

Option 2: If I still have reasons to doubt your perceptual judgment, then I can retreat from accepting your factive-perception claim itself to accepting *that you believe* that that claim is correct. I can then assess this belief for reliability in the situation, appealing to the usual evidence one might have for it—your personal reliability as an epistemic agent, the lighting in the room (if I know what that is), etc.

In this case, I treat you as a believer rather than as a knower, and use the fact of your (perceptual) belief as evidence in a probabilistic rule of acceptance for purposes of rational belief formation.

But there are also circumstances in which giving a factive-perception-that-*p* response to a challenge need not be giving a normative reason for believing that *p*. This is when the challenge takes the form “*How* do you know that *p*?” Asking this question is different from asking “*Why* do you *think* that *p*?” The latter is clearly a request for a *reason* for belief, justificatory or causal. McDowell formulates his question as a Why?—question in the passage quoted above; that is what a reason is, after all—an answer to a Why?—question. But the former, it seems to me, is asking something different. When we ask someone how they know something we are asking them for the *source* of their knowledge.¹⁶ Did it come from something they saw? Did it come from something that someone told them? Did it come from something that they inferred from something else? If the answer to the last question is “Yes” then the source of their knowledge is inferential. This is, indeed, a legitimate source of knowledge, but it is not the only one—seeing that *p*, being told that *p* also can also be sources of knowledge.

Before proceeding, I want to distinguish, first, between an epistemic-justification inference and an epistemic-transmission inference and, second, between the ways in which each serves as an inferential source of knowledge.

An *epistemic justification inference* is an inference that yields a normative result by means of a rule of acceptance, deductive or inductive. Examples of such inferences with perceptual inputs are given above. Rules of acceptance tell us what propositions we *should* accept—this is the normative part. If we go on to actually accept the proposition that the rule says we should, then the rule also serves as a *cause of belief* (understanding *acceptances* of propositions now as *beliefs*). In this case, one can say that normative reasons are also causes. If we arrive at a belief in this way, and if the rule of acceptance is strong enough—it is a deductive rule for example—then we have an epistemic justificatory inference that is also a source of knowledge.

An *epistemic transmission principle*, on the other hand, is a non-normative principle. It takes an epistemic property of a belief in a proposition that *p*, “is knowledge” say, as input and asserts that this

¹⁶ For the notions of *source condition* and *transmission principle* (introduced just below) I am indebted to Audi (2011, pp. 176-205).

property is transmitted to another proposition, the proposition that q , when q is also believed and is logically derivable from p . For example, I start off believing that something is a dog and that is a mammal. The question is raised by you how I know these things. Regarding the dog-claim I say that I see that it is a dog, so have non-inferential knowledge that it is a dog. But I understand that one cannot just see that something is a mammal so I need to provide another source for the epistemic status of that belief. I know that if something is a dog that entails that it is a mammal and I assert this and the knowledge that it is a dog to demonstrate the knowledge-status of my belief that it is a mammal. Let us assume that this is a correct epistemic transmission principle which I cite, or implicitly rely on, in replying to your “How do I know that it is a mammal?”—question. The source of my knowledge that it is a mammal is an epistemic transmission principle, and an initial knowledge claim. Notice that an epistemic transmission principle is not, in itself, a rule of acceptance and does not, in itself, introduce normativity into the account. So, I know something, and have demonstrated that I know something, without making an epistemic justification inference.

I now consider more precisely what *a source of knowledge* is in the relevant sense? I focus on perceptual knowledge. One answer is that a source of perceptual knowledge that p is a *non-normative cause* of the component-belief that p . However, while that would be sufficient as an answer to a “Why do you believe?” question, “How do you know?” questions seem to demand more. I propose that what more they demand is an explanation of what makes a given belief knowledge. That is what a *source of knowledge* is in the relevant sense: It is a *knowledge-maker for beliefs*.

Saying that one sees that something is the case is a suitable answer to a “How do you know?” question. When a subject S sees that p is the case, there are three things involved: there is the belief that p , there is factive visual access to the fact that p and there is the production of the former by the latter. All three things are individually required by S 's seeing that p , and jointly these three things are sufficient for seeing that p . So, we have an analysis:

The Analysis of “S Sees That p”

S sees that p iff: (1) S has factive visual access to the fact that p ; (2) S believes that p ; and (3) S 's access to p causes S 's belief that p .

If I am right that suitable answers to “How do you know?” question are knowledge-makers, and that “I see that p ” is such an answer, then the three conditions that constitute the analysis of seeing that p are what make believing that p a case of knowing that p . This yields a principle:

The Visual Perception Knowledge-Maker Principle:

S has a belief that p which amounts to visual perceptual knowledge iff: (1) S has factive visual access to the fact that p ; (2) S believes that p ; and (3) S 's access to p causes S 's belief that p .

How does the Visual Perception Knowledge-Maker Principle compare with Descartes' Analysis of Knowledge? Except for increased generality and the reference to epistemic transparency in Descartes' account, they are the very same. Descartes may not be the father of Modern Philosophy but, at least, when it comes to Modern Epistemology, he anticipates some of its best ideas.

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