

# Epistemology

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Defined narrowly, epistemology is the study of knowledge and justified belief. As the study of knowledge, epistemology is concerned with the following questions: What are the necessary and sufficient conditions of knowledge? What are its sources? What is its structure, and what are its limits? As the study of justified belief, epistemology aims to answer questions such as: How we are to understand the concept of justification? What makes justified beliefs justified? Is justification internal or external to one's own mind? Understood more broadly, epistemology is about issues having to do with the creation and dissemination of knowledge in particular areas of inquiry. This article will provide a systematic overview of the problems that the questions above raise and focus in some depth on issues relating to the structure and the limits of knowledge and justification.

## 1. What is Knowledge?

### 1.1 Knowledge as Justified True Belief

There are various kinds of knowledge: knowing how to do something (for example, how to ride a bicycle), knowing someone in person, and knowing a place or a city. Although such knowledge is of epistemological interest as well, we shall focus on knowledge of *propositions* and refer to such knowledge using the schema '*S* knows that *p*', where '*S*' stands for the subject who has knowledge and '*p*' for the proposition that is known.<sup>[1]</sup> Our question will be: What are the necessary and sufficient conditions for *S* to know that *p*? We may distinguish, broadly, between a traditional and a non-traditional approach to answering this question. We shall refer to them as 'TK' and 'NTK'.

According to TK, knowledge that *p* is, at least approximately, justified true belief (JTB). False propositions cannot be known. Therefore, knowledge requires truth. A proposition *S* doesn't even believe can't be a proposition that *S* knows. Therefore, knowledge requires belief. Finally, *S*'s being correct in believing that *p* might merely be a matter of luck.<sup>[2]</sup> Therefore, knowledge requires a third element, traditionally identified as justification. Thus we arrive at a tripartite analysis of knowledge as JTB: *S* knows that *p* if and only if *p* is true and *S* is justified in believing that *p*. According to this analysis, the three conditions — truth, belief, and justification — are individually necessary and jointly sufficient for knowledge.<sup>[3]</sup>

Initially, we may say that the role of justification is to ensure that *S*'s belief is not true merely because of luck. On that, TK and NTK are in agreement. They diverge, however, as soon as we proceed to be more specific about exactly how justification is to fulfill this role. According to TK, *S*'s belief that *p* is true not merely because of luck when it is reasonable or rational, from *S*'s own point of view, to take *p* to be true. According to *evidentialism*, what makes a belief justified in this sense is the possession of evidence. The basic idea is that a belief is justified to the degree it fits *S*'s evidence. NTK, on the other hand, conceives of the role of justification differently. Its job is to ensure that *S*'s belief has a high objective probability of truth and therefore, if true, is not true merely because of luck. One prominent idea is that this is accomplished if, and only if, a belief originates in reliable cognitive processes or faculties. This view is known as *reliabilism*.<sup>[4]</sup>

### 1.2 The Gettier Problem

The tripartite analysis of knowledge as JTB has been shown to be incomplete. There are cases of JTB that do not qualify as cases of knowledge. JTB, therefore, is not *sufficient* for knowledge. Cases like that — known as *Gettier-cases*<sup>[5]</sup> — arise because neither the possession of evidence nor origination in reliable faculties is sufficient for ensuring that a belief is not true merely because of luck. Consider the well-known case of barn-facades: Henry drives through a rural area in which what appear to be barns are, with the exception of just one, mere barn facades. From the road Henry is driving on, these facades look exactly like real barns. Henry happens to be looking at the one and only real barn in the area and believes that there's a barn over there. Henry's belief is justified, according to TK, because Henry's visual experience justifies his belief. According to NTK, his belief is justified because Henry's belief originates in a reliable cognitive process: vision. Yet Henry's belief is plausibly viewed as being true merely because of luck. Had Henry noticed one of the barn-facades instead, he would also have believed that there's a barn over there. There is, therefore, broad agreement among epistemologists that Henry's belief does not qualify as knowledge.<sup>[6]</sup>

To state conditions that are jointly sufficient for knowledge, what further element must be added to JTB? This is known as the *Gettier problem*. According to TK, solving the problem requires a fourth condition. According to some NTK theorists, it calls for refining the concept of reliability. For example, if reliability could suitably be indexed to the subject's environment, reliabilists could say that Henry's belief is not justified because in his environment, vision is not reliable when it comes to discerning barns from barn-facades.<sup>[7]</sup>

Some NTK theorists bypass the justification condition altogether. They would say that, if we conceive of knowledge as reliably produced true belief, there is no need for justification. Reliabilism, then, comes in two forms: as a theory of justification or as a theory of knowledge. As the former, it views justification to be an important ingredient of knowledge but, unlike TK, grounds justification solely in reliability. As a theory of knowledge, reliabilism asserts that justification is not necessary for knowledge; rather, reliably produced true belief (provided the notion of reliability is suitably refined to rule out Gettier cases) is sufficient for it.<sup>[8]</sup>

## 2. What is Justification?

When we discuss the nature of justification, we must distinguish between two different issues: First, what do we *mean* when we use the word 'justification'? Second, what *makes* beliefs justified? It is important to keep these issues apart because a disagreement on how to answer the second question will be a mere verbal dispute, if the disagreeing parties have different concepts of justification in mind. So let us first consider what we might mean by 'justification' and then move on to the non-definitional issues.<sup>[9]</sup>

### 2.1 Deontological and Non-Deontological Justification

How is the term 'justification' used in ordinary language? Here is an example: Tom asked Martha a question, and Martha responded with a lie. Was she justified in lying? Jane thinks she was, for Tom's question was an inappropriate one, the answer to which was none of Tom's business. What might Jane mean when she thinks that Martha was justified in responding with a lie? A natural answer is this: She means that Martha was *under no obligation* to refrain from lying. Due the inappropriateness of Tom's question, it wasn't Martha's *duty* to tell the truth. This understanding of justification, commonly labeled *deontological*, may be defined as follows: *S* is justified in doing *x* if and only if *S* is not obliged to refrain from doing *x*.<sup>[10]</sup>

Suppose, when we apply the word justification not to actions but to beliefs, we mean something analogous. In that case, the term ‘justification’ as used in epistemology would have to be defined this way:

### **Deontological Justification (DJ)**

*S* is justified in believing that *p* if and only if *S* believes that *p* while it is not the case that *S* is obliged to refrain from believing that *p*.<sup>[11]</sup>

What kind of obligations are relevant when we wish to assess whether a *belief*, rather than an action, is justified or unjustified? Whereas when we evaluate an action, we are interested in assessing the action from either a moral or a prudential point of view, when it comes to beliefs, what matters is the pursuit of *truth*. The relevant kinds of obligations, then, are those that arise when we aim at having true beliefs. Exactly what, though, must we do in the pursuit of this aim? According to one answer, the one favored by evidentialists, we ought to believe in accord with our evidence. For this answer to be helpful, we need an account of what our evidence consists of. According to another answer, we ought to follow the correct epistemic norms. If this answer is going to help us figure out what obligations the truth-aim imposes on us, we need to be given an account of what the correct epistemic norms are.<sup>[12]</sup>

The deontological understanding of the concept of justification is common to the way philosophers such as Descartes, Locke, Moore and Chisholm have thought about justification. Today, however, the dominant view is that the deontological understanding of justification is unsuitable for the purposes of epistemology. Two chief objections have been raised against conceiving of justification deontologically. First, it has been argued that DJ presupposes that we can have a sufficiently high degree of control over our beliefs. But beliefs are akin not to actions but rather things such as digestive processes, sneezes, or involuntary blinkings of the eye. The idea is that beliefs simply arise in or happen to us. Therefore, beliefs are not suitable for deontological evaluation.<sup>[13]</sup> To this objection, some advocates of DJ have replied that lack of control over our beliefs is no obstacle to using the term ‘justification’ in its deontological sense.<sup>[14]</sup> Others have argued that it's a mistake to think that we can control our beliefs any less than our actions.<sup>[15]</sup>

According to the second objection to DJ, deontological justification does not tend to ‘epistemize’ true beliefs: it does not tend to make them non-accidentally true. This claim is typically supported by describing cases involving either a benighted, culturally isolated society or subjects who are cognitively deficient. Such cases involve beliefs that are claimed to be epistemically defective even though it would not seem that the subjects in these cases are under any obligation to refrain from believing as they do. What makes the beliefs in question epistemically defective is that they are formed using unreliable and intellectually faulty methods. The reason why the subjects, from their own point of view, are not obliged to believe otherwise is that they are either cognitively deficient or live in a benighted and isolated community. DJ says that such beliefs are justified. If they meet the remaining necessary conditions, DJ-theorists would have to count them as knowledge. According to the objection, however, the beliefs in question, even if true, could not possibly qualify as knowledge, due to the epistemically defective way they were formed. Consequently, DJ must be rejected.<sup>[16]</sup>

Those who reject DJ use the term ‘justification’ in a technical sense that deviates from how the word is ordinarily used. The technical sense is meant to make the term suitable for the needs of epistemology.<sup>[17]</sup> But how are we then to conceive of justification? What does it mean for a belief to be justified in a non-deontological sense? Recall that the role assigned to justification is that of ensuring that a true belief isn't true merely by accident. Let us say that this is accomplished when a

true belief instantiates the property of *proper probabilification*. We may, then, define non-deontological justification as follows:

### **Non-Deontological Justification (NDJ)**

*S* is justified in believing that *p* if and only if *S* believes that *p* on a basis that properly probabilifies *S*'s belief that *p*.

If we wish to pin down exactly what probabilification amounts to, we will have to deal with a variety of tricky issues.<sup>[18]</sup> For now, let us just focus on the main point. Those who prefer NDJ to DJ would say that probabilification and deontological justification can diverge: it's possible for a belief to be deontologically justified without being properly probabilified. This is just what cases involving benighted cultures or cognitively deficient subjects are supposed to show.<sup>[19]</sup>

## **2.2 Evidence vs. Reliability**

What *makes* justified beliefs justified? According to evidentialists, it is the possession of evidence. What is it, though, to possess evidence for believing that *p*? Some evidentialists would say it is to be in a mental state that represents *p* as being true. For example, if the coffee in your cup tastes sweet to you, then you have evidence for believing that the coffee is sweet. If you feel a throbbing pain in your head, you have evidence for believing that you have a headache. If you have a memory of having had cereal for breakfast, then you have evidence for a belief about the past: a belief about what you ate when you had breakfast. And when you clearly "see" or "intuit" that the proposition "If Jack had more than four cups of coffee, then Jack had more than three cups of coffee" is true, then you have evidence for believing that proposition. In this view, evidence consists of perceptual, introspective, memorial, and intuitional experiences, and to possess evidence is to have an experience of that kind. So according to this evidentialism, what makes you justified in believing that *p* is your having an experience that represents *p* as being true.

Many reliabilists, too, would say that the experiences mentioned in the previous paragraph matter. However, they would deny that justification is solely a matter of having suitable experiences. Rather, they hold that a belief is justified if, and only if, it results from cognitive origin that is reliable: an origin that tends to produce true beliefs and therefore properly probabilifies the belief. Reliabilists, then, would agree that the beliefs mentioned in the previous paragraph are justified. But according to a standard form of reliabilism, what makes them justified is not the possession of evidence, but the fact that the types of processes in which they originate — perception, introspection, memory, and rational intuition — are reliable.

## **2.3 Internal vs. External**

In contemporary epistemology, there has been an extensive debate on whether justification is internal or external. Internalists claim that it is internal; externalists deny it. How are we to understand these claims?

To understand what the internal-external distinction amounts to, we need to bear in mind that, when a belief is justified, there is something that *makes* it justified. Likewise, if a belief is unjustified, there is something that *makes* it unjustified. Let's call the things that make a belief justified or unjustified J-factors. The dispute over whether justification is internal or external is a dispute about what the J-factors are.

Among those who think that justification is internal, there is no unanimity on how to understand the concept of internality. We can distinguish between two approaches. According to the first,

justification is internal because we enjoy a special kind of access to J-factors: they are *always* recognizable on reflection.<sup>[20]</sup> Hence, assuming certain further premises (which will be mentioned momentarily), justification itself is always recognizable on reflection.<sup>[21]</sup> According to the second approach, justification is internal because J-factors are always mental states.<sup>[22]</sup> Let's call the former *accessibility internalism* and the latter *mentalist internalism*. Externalists deny that J-factors meet either one of these conditions.

Evidentialism is typically associated with internalism, and reliabilism with externalism.<sup>[23]</sup> Let us see why. Evidentialism says, at a minimum, two things:

- E1 Whether one is justified in believing  $p$  depends on one's evidence regarding  $p$ .
- E2 One's evidence consists of one's mental states.

By virtue of E2, evidentialism is obviously an instance of mentalist internalism.

Whether evidentialism is also an instance of accessibility internalism is a more complicated issue. The conjunction of E1 and E2 by itself implies nothing about the recognizability of justification. Recall, however, that in Section 1.1 we distinguished between TK and NTK: the traditional and the nontraditional approach to the analysis of knowledge and justification. TK advocates, among which evidentialism enjoys widespread sympathy, tend to endorse the following two claims:

### **Luminosity**

One's own mind is cognitively luminous: Relying on introspection, one can always recognize on reflection what mental states one is in.<sup>[24]</sup>

### **Necessity**

*a priori* recognizable, necessary principles say what is evidence for what.<sup>[25]</sup> Relying on *a priori* insight, one can therefore always recognize on reflection whether one's mental states are evidence for  $p$ .<sup>[26]</sup>

Although E1 and E2 by themselves do not imply access internalism, it is quite plausible to maintain that evidentialism, when embellished with Luminosity and Necessity, becomes an instance of access internalism.<sup>[27]</sup>

Next, let us consider why reliabilism is an externalist theory. Reliabilism says that the justification of one's beliefs is a function of, not one's evidence, but the reliability of one's belief sources such as memorial, perceptual and introspective states and processes. Whereas the sources might qualify as mental, their reliability does not. Therefore, reliabilists reject mentalist internalism. Moreover, if the justification of one's beliefs is determined by the reliability of one's belief sources, justification will not always be recognizable on reflection. Hence reliabilists reject access internalism as well.<sup>[28]</sup>

Let's use an example of radical deception to illustrate the difference between evidentialism as an internalist theory and reliabilism as an externalist theory. If evidentialism is true, a subject who is radically deceived will be misled about what is actually the case, but not about what he is justified in believing. If, on the other hand, reliabilism is true, then such a subject will be misled about both what is actually the case and what he is justified in believing. Let us see why.

Distinguish between Tim and Tim\*: one and the same person whom we imagine in two altogether different situations. Tim's situation is normal, like yours or mine. Tim\*, however, is a brain in a vat. Suppose a mad scientist abducted and "envatted" Tim\* by removing his brain from his skull and putting it in a vat in which his brain is kept alive. Next, the mad scientist connects the nerve endings

of Tim\*'s brain with wires to a machine that, controlled by a powerful computer, starts stimulating Tim\*'s brain in such a way that Tim\* does not notice what actually happened to him. He is going to have perfectly ordinary experiences, just like Tim. Indeed, let's assume that the mental states of Tim and the mental states of Tim\* are alike. But, since Tim\* is a brain in a vat, he is, unlike Tim, radically deceived about his actual situation. For example, when Tim believes he has hands, he is right. When Tim\* believes he has hands, he is mistaken. (His hands were discarded, along with the rest of his limbs and torso.) When Tim believes he is drinking coffee, he is right. When Tim\* believes he is drinking coffee, he is mistaken. (Brains don't drink coffee.) Now suppose Tim\* asks himself whether he is justified in believing that he has hands. Since Tim\* is just like Tim, Tim\* will say that his belief is justified, just as Tim would if he were to ask himself whether he is justified in believing that he has hands. Evidentialism implies that Tim\*'s answer is correct. For even though he is deceived about his external situation, he is not deceived about his evidence: the way things appear to him in his experiences. This illustrates the internality of evidentialist justification. Reliabilism, on the other hand, suggests that Tim\*'s answer is incorrect. Tim\*'s belief that he has hands originates in cognitive processes — "seeing" and "feeling" his (nonexisting) hands — that now yield virtually no true beliefs. To the extent that this implies their unreliability, the resulting beliefs are unjustified. Consequently, he is deceived not only about his external situation (his not having hands), but also about the justificational status of his belief that he has hands. This illustrates the externality of reliabilist justification.

The example of Tim and Tim\* may serve as well to illustrate a further way in which we may conceive of the difference between internalism and externalism. Some internalists take the following principle to be characteristic of the internalist point of view:

### **Mentalism**

If two subjects, *S* and *S\**, are alike mentally, then the justificational status of their beliefs is alike as well: the same beliefs are justified or unjustified for them to the same extent.<sup>[29]</sup>

When we apply this principle to the Tim/Tim\* example, it tells us that evidentialism is an internalist and reliabilism an externalist theory. Even though there are significant physical differences between Tim and Tim\*, mentally they are alike. Evidentialism implies that, since Tim and Tim\* are mentally alike, they have the same evidence, and thus are justificationaly alike as well. For example, they are both justified in believing that they have hands. This makes evidentialism an internalist theory. Reliabilism, on the other hand, allows that, even though Tim and Tim\* are mentally alike, they differ justificationaly, since Tim's beliefs are (by and large) produced by reliable cognitive faculties, whereas the faculties that produce Tim\*'s beliefs may count as unreliable. For example, some versions of reliabilism imply that Tim is justified in believing that he has hands, whereas Tim\* is not. This makes reliabilism an externalist theory.<sup>[30]</sup>

## **2.4 Why Internalism?**

Why think that justification is internal? One argument for the internality of justification goes as follows: "Justification is deontological: it is a matter of duty-fulfillment. But duty-fulfillment is internal. Therefore, justification is internal." Another argument appeals to the brain-in-the-vat scenario we considered above: "Tim\*'s belief that he has hands is justified in the way that Tim's is justified. Tim\* is internally the same as Tim and externally quite different. Therefore, internal factors are what justify beliefs." Finally, since justification resulting from the possession of evidence is internal justification, internalism can be supported by way of making a case for evidentialism. What, then, can be said in support of evidentialism? Evidentialists would appeal to cases in which a belief is reliably formed but not accompanied by any experiences that would qualify as evidence. They would say that it's not plausible to claim that, in cases like that, the

subject's belief is justified. Hence such cases show, according to evidentialists, that a belief can't be justified unless it's supported by evidence.<sup>[31]</sup>

## 2.5 Why Externalism?

Why think that justification is external? To begin with, externalists about justification would point to the fact that animals and small children have knowledge and thus have justified beliefs. But their beliefs can't be justified in the way evidentialists conceive of justification. Therefore, we must conclude that the justification their beliefs enjoy is external: resulting not from the possession of evidence but from origination in reliable processes. And second, externalists would say that what we want from justification is the kind of objective probability needed for knowledge, and only external conditions on justification imply this probability. So justification has external conditions.<sup>[32]</sup>

(...)

## 4. Sources of Knowledge and Justification

Beliefs arise in people for a wide variety of causes. Among them, we must list psychological factors such as desires, emotional needs, prejudice, and biases of various kinds. Obviously, when beliefs originate in sources like these, they don't qualify as knowledge even if true. For true beliefs to count as knowledge, it is necessary that they originate in sources we have good reason to consider reliable. These are perception, introspection, memory, reason, and testimony. Let us briefly consider each of these.

### 4.1 Perception

Our perceptual faculties are our five senses: sight, touch, hearing, smelling, and tasting. We must distinguish between an experience that can be classified as *perceiving* that  $p$  (for example, seeing that there is coffee in the cup and tasting that it is sweet), which entails that  $p$  is true, and a perceptual experience in which it seems to us as though  $p$ , but where  $p$  might be false. Let us refer to this latter kind of experience as *perceptual seemings*. The reason for making this distinction lies in the fact that perceptual experience is fallible. The world is not always as it appears to us in our perceptual experiences. We need, therefore, a way of referring to perceptual experiences in which  $p$  seems to be the case that allows for the possibility of  $p$  being false. That's the role assigned to perceptual seemings. So some perceptual seemings that  $p$  are cases of perceiving that  $p$ , others are not. When it looks to you as though there is a cup of coffee on the table and in fact there is, the two states coincide. If, however, you hallucinate that there is a cup on the table, you have perceptual seeming that  $p$  without perceiving that  $p$ .

One family of epistemological issues about perception arises when we concern ourselves with the psychological nature of the perceptual processes through which we acquire knowledge of external objects. According to *direct realism*, we can acquire such knowledge because we can directly perceive such objects. For example, when you see a tomato on the table, *what you perceive* is the tomato itself. According to *indirect realism*, we acquire knowledge of external objects by virtue of perceiving something else, namely appearances or sense-data. An indirect realist would say that, when you see and thus know that there is a tomato on the table, what you really see is not the tomato itself but a tomato-like sense-datum or some such entity.

Direct and indirect realists hold different views about the structure of perceptual knowledge. Indirect realists would say that we acquire perceptual knowledge of external objects by virtue of perceiving sense data that represent external objects. Sense data, a species of mental states, enjoy a special status: we know directly what they are like. So indirect realists think that, when perceptual knowledge is foundational, it is knowledge of sense data and other mental states. Knowledge of external objects is indirect: derived from our knowledge of sense data. The basic idea is that we have indirect knowledge of the external world because we can have foundational knowledge of our own mind. Direct realists can be more liberal about the foundation of our knowledge of external objects. Since they hold that perceptual experiences get you in direct contact with external objects, they can say that such experiences can give you foundational knowledge of external objects.

We take our perceptual faculties to be reliable. But how can we know that they are reliable? For externalists, this might not be much of a challenge. If the use of reliable faculties is sufficient for knowledge, and if by using reliable faculties we acquire the belief that our faculties are reliable, then we come to know that our faculties are reliable. But even externalists might wonder how they can, via argument, *show* that our perceptual faculties are reliable. The problem is this. It would seem the only way of acquiring knowledge about the reliability of our perceptual faculties is through memory, through remembering whether they served us well in the past. But should I trust my memory, and should I think that the episodes of perceptual success that I seem to recall were in fact episodes of perceptual success? If I am entitled to answer these questions with 'yes', then I need to have, to begin with, reason to view my memory and my perceptual experiences as reliable. It would seem, therefore, that there is no non-circular way of arguing for the reliability of one's perceptual faculties.<sup>[47]</sup>

## 4.2 Introspection

Introspection is the capacity to inspect the, metaphorically speaking, "inside" of one's mind. Through introspection, one knows what mental states one is in: whether one is thirsty, tired, excited, or depressed. Compared with perception, introspection appears to have a special status. It is easy to see how a perceptual seeming can go wrong: what looks like a cup of coffee on the table might be just be a clever hologram that's visually indistinguishable from an actual cup of coffee. But could it be possible that it introspectively seems to me that I have a headache when in fact I do not? It is not easy to see how it could be. Thus we come to think that introspection has a special status. Compared with perception, introspection seems to be privileged by virtue of being less error prone. How can we account for the special status of introspection?

First, it could be argued that, when it comes to introspection, there is no difference between appearance and reality; therefore, introspective seemings are necessarily successful introspections. According to this approach, introspection is infallible. Alternatively, one could view introspection as a source of certainty. Here the idea is that an introspective experience of  $p$  eliminates all possible doubt as to whether  $p$  is true. Finally, one could attempt to explain the specialness of introspection by examining the way we respond to first-person reports: typically, we attribute a special authority to such reports. According to this approach, introspection is incorrigible. Others are not, or at least not typically, in a position to correct first-person reports of one's own mental states.

Introspection reveals how the world appears to us in our perceptual experiences. For that reason, introspection has been of special interest to foundationalists. Perception is not immune to error. If certainty consists in the absence of all possible doubt, perception fails to yield certainty. Hence beliefs based on perceptual experiences cannot be foundational. Introspection, however, might deliver what we need to find a firm foundation for our beliefs about external objects: at best outright



immunity to error or all possible doubt, or perhaps more modestly, an epistemic kind of directness that cannot be found in perception.

Is it really true, however, that, compared with perception, introspection is in some way special? Critics of foundationalism have argued that introspection is certainly not infallible. Might one not confuse an unpleasant itch for a pain? Might I not think that the shape before me appears circular to me when in fact it appears slightly elliptical to me? If it is indeed possible for introspection to mislead, then it is hard to see why introspection should eliminate all possible doubt. Yet it isn't easy to see either how, if one clearly and distinctly feels a throbbing headache, one could be mistaken about that. Introspection, then, turns out to be a mysterious faculty. On the one hand, it does not seem to be in general an infallible faculty; on the other hand, when looking at appropriately described specific cases, error does seem impossible.<sup>[48]</sup>

### 4.3 Memory

Memory is the capacity to retain knowledge acquired in the past. What one remembers, though, need not be a past event. It may be a present fact, such as one's telephone number, or a future event, such as the date of the next elections. Memory is, of course, fallible. Not every instance of taking oneself to remember that  $p$  is an instance of actually remembering that  $p$ . We should distinguish, therefore, between remembering that  $p$  (which entails the truth of  $p$ ) and *seeming* to remember that  $p$  (which does not entail the truth of  $p$ ).

One issue about memory concerns the question of what distinguishes memorial seemings from perceptual seemings or mere imagination. Some philosophers have thought that having an image in one's mind is essential to memory, but that would appear to be mistaken. When one remembers one's telephone number, one is unlikely to have an image of one's number in one's mind. The distinctively epistemological questions about memory are these: First, what makes memorial seemings a source of justification? Is it a necessary truth that, if one has a memorial seeming that  $p$ , one has thereby *prima facie* justification for  $p$ ? Or is memory a source of justification only if, as coherentists might say, one has reason to think that one's memory is reliable? Or is memory a source of justification only if, as externalists would say, it is in fact reliable? Second, how can we respond to skepticism about knowledge of the past? Memorial seemings of the past do not guarantee that the past is what we take it to be. We think that we are a bit older than just five minutes, but it is logically possible that the world sprang into existence just five minutes ago, complete with our dispositions to have memorial seemings of a more distant past and items such as apparent fossils that suggest a past going back millions of years. Our seeming to remember that the world is older than a mere five minutes does not entail, therefore, that it really is. Why, then, should we think that memory is a source of knowledge about the past?<sup>[49]</sup>

### 4.4 Reason

Some beliefs would appear to be justified solely by the use of reason. Justification of that kind is said to be *a priori*: prior to any kind of experience. A standard way of defining *a priori* justification goes as follows:

#### ***A Priori* Justification**

$S$  is justified *a priori* in believing that  $p$  if and only if  $S$ 's justification for believing that  $p$  does not depend on any experience.

Beliefs that are true and justified in this way (and not somehow "gettiered") would count as instances of *a priori* knowledge.<sup>[50]</sup>

What exactly counts as experience? If by 'experience' we mean just *perceptual* experiences, justification deriving from introspective or memorial experiences would count as *a priori*. For example, I could then know *a priori* that I'm thirsty, or what I ate for breakfast this morning. While the term '*a priori*' is sometimes used in this way, the strict use of the term restricts *a priori* justification to justification derived *solely* from the use of reason. According to this usage, the word 'experiences' in the definition above includes perceptual, introspective, and memorial experiences alike. On this narrower understanding, paradigm examples of what I can know on the basis of *a priori* justification are conceptual truths (such as "All bachelors are unmarried"), and truths of mathematics, geometry and logic.

Justification and knowledge that is not *a priori* is called 'a posteriori' or 'empirical'. For example, in the narrow sense of '*a priori*', whether I'm thirsty or not is something I know empirically (on the basis of introspective experiences), whereas I know *a priori* that 12 divided by 3 is 4.

Several important issues arise about *a priori* knowledge. First, does it exist at all? Skeptics about apriority deny its existence. They don't mean to say that we have no knowledge of mathematics, geometry, logic, and conceptual truths. Rather, what they claim is that all such knowledge is empirical.

Second, if *a priori* justification is possible, exactly how does it come about? What *makes* a belief such as "All bachelors are unmarried" justified solely on the basis of reason? Is it an unmediated grasp of the truth of this proposition? Or does it consist of grasping that the proposition is *necessarily* true? Or is it the purely intellectual experience of "seeing" (with they "eye of reason") or "intuiting" that this proposition is true (or necessarily true)? Or is it, as externalists would suggest, the reliability of the cognitive process by which we come to recognize the truth of such a proposition?

Third, if *a priori* knowledge exists, what is its extent? *Empiricists* have argued that *a priori* knowledge is limited to the realm of the *analytic*, consisting of propositions of a somehow inferior status because they are not really "about the world". Propositions of a superior status, which convey genuine information about world, are labeled *synthetic*. *a priori* knowledge of synthetic propositions, empiricists would say, is not possible. *Rationalists* deny this. They would say that a proposition such as "If a ball is green all over, then it doesn't have black spots" is synthetic and knowable *a priori*.

A fourth question about the nature of *a priori* knowledge concerns the distinction between necessary and contingent truths. The received view is that whatever is known *a priori* is necessarily true, but there are epistemologists who disagree with that.<sup>[51]</sup>

## 4.5 Testimony

Testimony differs from the sources we considered above because it isn't distinguished by having its own cognitive faculty. Rather, to acquire knowledge of *p* through testimony is to come to know that *p* on the basis of someone's saying that *p*. "Saying that *p*" must be understood broadly, as including ordinary utterances in daily life, postings by bloggers on their web-logs, articles by journalists, delivery of information on television, radio, tapes, books, and other media. So, when you ask the person next to you what time it is, and she tells you, and you thereby come to know what time it is, that's an example of coming to know something on the basis of testimony. And when you learn by reading the *Washington Post* that the terrorist attack in Sharm el-Sheikh of July 22, 2005 killed at least 88 people, that, too, is an example of acquiring knowledge on the basis of testimony.

The epistemological puzzle testimony raises is this: Why is testimony a source of knowledge? An externalist might say that testimony is a source of knowledge if and only if it comes from a reliable source. But here, even more so than in the case of our faculties, internalists will not find that answer satisfactory. Suppose you hear someone saying 'p'. Suppose further that person is in fact utterly reliable with regard to the question of whether p is the case or not. Finally, suppose you have no evidential clue whatever as to that person's reliability. Wouldn't it be plausible to conclude that, since that person's reliability is unknown to you, that person's saying 'p' does not put you in a position to know that p? But if the reliability of a testimonial source is not sufficient for making it a source of knowledge, what else is needed? Thomas Reid suggested that, by our very nature, we accept testimonial sources as reliable and tend to attribute credibility to them unless we encounter special contrary reasons. But that's merely a statement of the attitude we in fact take toward testimony. What is it that makes that attitude reasonable? It could be argued that, in one's own personal experiences with testimonial sources, one has accumulated a long track record that can be taken as a sign of reliability. However, when we think of the sheer breadth of the knowledge we derive from testimony, one wonders whether one's personal experiences constitute an evidence base rich enough to justify the attribution of reliability to the totality of the testimonial sources one tends to trust. An alternative to the track record approach would be to declare it a necessary truth that trust in testimonial sources is justified. This suggestion, alas, encounters the same difficulty as the externalist approach to testimony: it does not seem we can acquire knowledge from sources the reliability of which is utterly unknown to us.<sup>[52]</sup>

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