

WHAT CAN WE LEARN FROM PSYCHOLOGY ABOUT THE NATURE OF KNOWLEDGE?

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0. Introduction

Epistemology is a normative discipline. Traditionally it is supposed to tell us what we *ought to* believe, and under what conditions we can be said to know, in contrast to *how* we believe, and how we come to know. The latter questions call for descriptions of the origins of our knowledge in various areas, whereas the former asks about a definition of it. In this respect there is a fundamental difference between the kind of inquiry that psychologists, anthropologists, and historians lead about belief, perception, knowledge and other cognitive phenomena, and the kind of inquiry that philosophers and epistemologists lead about such notions. As a result, it often happens that when philosophers tell us that they are interested in the concept of knowledge, and in the analysis of this concept, they do not really talk about the same thing as psychologists when they talk to us about the way this concept is learned, acquired, or used by children and adults. Not only the objects, but the methods are not the same: philosophers inquire about the *possibility* of knowledge, and about our *right* to use this concept, and they deal with thought experiments, compare the meaning of epistemic words in natural language, and try to come up with the best account of what knowledge *could be*, and to give a *theory* of it, whereas psychologists attempt, more modestly, to say in what circumstances we come to know this or that, and they deal with real experiments about what people say and think, in the real world. But how can these different kinds of inquiries be completely divorced from each other? On the one hand, the philosopher-epistemologist must rely, in order to compare claims to knowledge, upon our actual use of this concept, and upon our ordinary intuitions about it. Even if he deals with the conditions of possibility of knowledge, he must rely on some description of it. On the other hand, when the psychologist attempts to give an analysis of our acquisition of the concept of knowledge, he must rely upon at least a preliminary definition of it, and he can hardly avoid to raise some normative questions. There must be some sort of trade off between the descriptive and the normative enterprise.

In this talk, I shall not try to deal with all the issues raised by the confrontation between the psychological and the philosophical analysis of knowledge, but only with a limited set of them. I shall not deal, in particular with all the kinds of sources of knowledge in children and human adults that psychologists are interested in: sensation, perception, inference, etc. Neither shall I deal with the various kinds of knowledge and their differences: scientific vs commonsensical knowledge,

mathematical, physical, biological, etc. But my concern will be with commonsensical or “naïve” knowledge, but only within a restricted part of it: our knowledge of the very concept of knowledge. I shall deal with some recent work done by psychologists on the acquisition by children of the ordinary *concept* of knowledge and of other epistemic terms, such as belief, mostly in this part of developmental psychology, mostly within the domain of what is known today as the research on “naïve psychology” and “the child’s theory of mind”. An increasing part of this research deals with what is called “naïve epistemology”. What can this field tell to the philosopher? What can we learn from it when we deal with epistemology proper? At first sight, given the division of labour between psychology and philosophy, the overlap between the two inquiries should be small, or null. But I shall show that in fact there are much closer links than we could expect.

1. The current analysis of knowledge in contemporary analytic philosophy

The most current analysis of knowledge in contemporary analytic philosophy is the most traditional one (Engel 1996, Engel 2000); it comes from Plato’s *Theaetetus* where a “preliminary” definition of knowledge is given: knowledge is “true belief with a reason” (*logos*). Transcribed in the definitional style this gives the following analysis:

- (K) X knows that p if and only if
- (i) X believes that p (belief condition)
 - (ii) p is true (truth condition)
 - (iii) X is justified in believing that p (justification condition)

The “if and only” indicates that the three conditions (i) are jointly necessary and sufficient for knowing that p . That each condition is necessary but not sufficient can be seen by examining each in turn. If I know that p , then I must at least believe that p . Could I be said to know something which I did not in the first place believe? This seems odd. To say, for instance, that I know that the Pisa tower is leaning but that I do not believe that the Pisa tower is leaning, seems to be contradictory. In some sense, if I know that something is the case, I must represent to myself the content of the proposition which is the object of my knowledge. Of course, there are cases of knowing which do not seem to imply the existence of such prior representings or believings of a proposition: for instance knowing how to ride a bicycle, or knowing how to play the guitar. These are cases of *knowing how*, or of physical aptitudes, which do not involve necessarily propositional representations. Some linguists, like Chomsky, even claim that knowledge of the grammatical structure of our own mother tongue is a knowledge of this sort. But the definition (K) does not bear on such knowledge: it bears on *propositional* knowledge, knowledge *that*, but knowledge *how*.

If we accept this, the belief condition (i) is necessary. But it is not sufficient. For to believe that p is of course not yet to know that p . In order for me to know that p , the second condition must be added: p must not only be believed, but also be *true*. To say “I know that p , but p is false” is contradictory. In other words, knowledge that

p implies the truth of the proposition believed. Otherwise we would merely believe that p , and we would not know it. Mere belief is not knowledge (this why we can say: “I believe that p , but I do not know it”): there must be something in the world, the truth of the proposition, or the existence of the state of affairs described by the proposition, which adds up to the mere belief or internal representation of it, in order for me to have knowledge.

So the truth condition (ii) is also necessary for knowledge. But is it sufficient? No, for I might have a true belief that p which nevertheless fails to be knowledge. I might come up with a true belief that p by mere luck or happy accident. For instance the school teacher asks the child: “What is the square root of 49?” and if the child answers “7” at random, or because it just happens that 7 is his favourite number, one cannot say that he knows it. The child must also be justified in saying that 7 is the square root of 49; for that he must know what a square root is; he must be able to compute one, or to know his multiplication table. Similarly mere guesses, or true beliefs arrived at by coincidences, are not instances of knowledge. Something, then, must be added to true belief in order for it to be knowledge: mention of the *source*, or of the *reliable method*, or of the *reason* why the belief that p is considered to be true. There must be some sort of *justification*, or warrant, for the belief that p . Hence condition (iii) is also necessary.

We may note at this point, that it is this third condition, on justification, which makes the concept of knowledge primarily a “normative” concept. For a concept is normative if it cannot be described without using such notions as “correctness”, “reason”, or “good reasons”. Such notions seem to imply that the subject is not simply having beliefs, as mental states with contents, which can be described as true or false, but also that the subject must be able to *evaluate*, or appreciate, its own beliefs, compare them with others, and *reflect* upon them. This involves, or so it seems some capacity not only of representation, but also of *metarepresentation*, or of thinking *about* one’s own beliefs (“second-order beliefs”, as philosophers say, and evaluative second-order beliefs). The fact that “knowledge” is a normative notion in this sense seems to distinguish cognitive systems like the human cognitive systems from other cognitive systems like animals or computers.

But is (iii) sufficient for knowledge? At this point, the traditional definition (K) seems to be complete. But a moment of reflection shows that it may not be sufficient. First, (iii) is not correct alone. I might be justified in believing that p , without p being true. Justification by itself does not entail truth. For instance a detective might have excellent reasons to believe that M. So and So is the culprit – all the evidence at hand points to him – without Mr So and So being guilty of the murder. And it may also happen that he has justification, that the proposition p believed is true, but that his reason or justification for the truth of p is not the right one. We may see this through another example. Suppose that I believe that Silvio Berlusconi is the present Italian prime minister. It is, true, and I may have a justification for it, which is that last time I came to Italy, several years ago, Berlusconi was the present prime minister. But there is something which I ignore, which is that Berlusconi, after my visit to Italy, lost the elections and was not prime minister for several years. Indeed other people were

prime ministers, among whom Massimo d'Alema and Romano Prodi, before Berlusconi came back to power. I have, however, a justification for saying that Berlusconi is prime minister, which is that, several years ago, I believed justifiably that Berlusconi was prime minister. My belief is true, it is justified, but I can be said to know that Berlusconi is the present prime minister. It is just a matter of luck that my present belief is true – it is true because it happened that Berlusconi, after several years far from power, became again prime minister. So justification is not enough. We can say that I do not need only justification, or reason to believe that Berlusconi is prime minister, but an *appropriate* justification, or a *good* reason, a justification or a reason which links me to the appropriate state of affairs. But what is the nature of such justification? Philosophers analysing the notion of knowledge have, during the past thirty years or so, been very keen at giving such examples as the Berlusconi example, through what are known as Gettier cases, which are cases of justified true beliefs which fail to be knowledge because of some lucky condition or because the appropriate link between the believer and the state of affairs is not present (Gettier 1963, see Engel 1996 ch.5). The business of epistemologists has been to try to specify the appropriate justification-relation, and there is no uniform agreement on how this condition might be fulfilled.

What we are left with, in current epistemology, is therefore the traditional analysis of knowledge as justified true belief (i)-(iii), plus some appropriate specification of the justification condition, which we might formulate as the three conditions above, plus a fourth condition:

- (iv) the justification condition (iii) must relate the knower *appropriately* to the relevant state of affairs that *p*.

Philosophers reach this conclusion, in the way I have illustrated, through examples of each of the conditions, counterexamples, and imaginary cases, by doing variations upon the various conditions. They start for our current, ordinary understanding of terms such as “believe”, “know” or “justified”, or “true”, and they devise situations where one condition is missing whereas the other are met. They suppose that we have a normal mastery of the relevant concepts of “belief”, “knowledge”, “reason” and “justification”, that we are able to reflect upon them, and that we can compare the various situations (or “possible worlds”) in which they hold. Indeed epistemology is a normative inquiry precisely because it involves such a power of reflection and of metarepresentation on cases of belief, true beliefs, and knowledge, and because it tries to define such notions by making them vary. The product of these variations is supposed to give us necessary and sufficient conditions for knowledge, and these are normative in the sense that they spell out in what conditions we are *entitled* to know, or to have *good* cases of knowledge, as compared from devious cases.

2. The child's theory of mind

The philosophers, as I just said, presuppose that we have acquired the relevant epistemic notions, knowledge, belief, truth, justification, and that these are concepts which belong to our commonsensical repertoire of concepts. They suppose that we have reached a mature, or adult, mastery of these concepts. But we may ask: where do these concepts come from? how do we acquire them? This is a typical psychologist's question, which is raised in developmental psychology. A large part of this investigation has been led, in the recent years, under a particular heading: research on the "child's theory of mind", and upon the sources of our "folk" or "naïve psychology". In this large field of psychological inquiry, researchers inquire about the sources of our ordinary concepts about the mind, such as belief, desire, wishes, thoughts, perceptions, and on how children acquire them, and come to use them to have a large body of knowledge in order to explain the behaviour of people. Much of this research is led under the assumption that "folk psychology", in children and in adults, forms a specialised set of interrelated principles which leads to a specific competence which is often called a "theory of mind". (See Engel 1994, 1996, Marconi 2001, Meini 2001, for presentations of this field). The main assumptions behing this kind of work are the following, by increasing order of theoretical commitment:

- (1) Folk psychology or naïve psychology is not are mere collection of unsystematised capacities; it forms a sort of *coherent* set of principles, concepts, and schemes
- (2) These principles are mostly used by humans in order to explain and predict behaviour and actions, and most of the time, they give rise to certain *laws* linking psychological states to behaviour
- (3) The relevant body of information and laws can be called a "*theory*", in a sense similar to the sense in which a theory in natural science, say physics or biology, helps us to explain and predict the movement of bodies or the behaviour of organisms
- (4) This theory, the "theory of mind", and its set of principles, is at least *implicitly represented* in the minds of agents, through mental representations; hence it is a psychological theory about the behaviour of psychological states and their relations to actions; but it is not a scientific theory, it is naïve one, "naïve psychology"
- (5) This theory of mind coexists with other sets of competences, about the behaviour of physical objects (naïve physics), of biological objects (naïve biology) and natural kinds (naïve systematics, if one wants) , etc. These theories are made of concepts of the specific kinds of objects, and they are largely "*modular*" in the sense that the form specific capacities, to a certain extent independent from each other. Other modular sets of competences include competences with reasoning, inference, or with language and the representations of numbers. The the mind can be seen as a collection of "modules", which , together, form the basic competences of a normal human adult

- (6) The theory of mind is largely innate, and many researchers think that the mind-module has genetical underpinnings. It does not exist, or exists in different forms in animals. But it has also evolved, both at the phylogenetic and at the ontogenetic level. It also develops, at a certain age of psychological development in children, generally recognised to occur towards the age between 3 and 4. Hence small children before 3, and infants do not have “a theory of mind”, or have only undeveloped versions of it. Autistic children characteristically do not have it, and it has been hypothesised that it can be one of the main explanations of autism.
- (7) Within the theory of mind itself, there may be submodules, corresponding to specific conceptual domains: for instance, it may be that the submodule responsible for children’s recognition of desires and other motivational states is distinct from the submodule responsible for the recognition of beliefs and other epistemic states. In this respect, there may be a “naïve epistemology”, distinct from a naïve “theory of action”, and from a naïve physics as well.

None of these hypotheses are uncontroversial: there are disagreements about the innate nature of these competences, their causal underpinnings, their internal structure and their functioning. There is also a major divide between those researchers who think that the theory of mind (TOM) is a more or less genuine theory, a cognitive capacity, and those who think that it is tied in essential ways to emotions. Even when developmental psychologists agree that it is a cognitive competence, they disagree on how it works: a major trend says that it is really a sort of *theory*, organised as a set of laws and inferential structures, whereas other claim that it is mostly the product of a capacity of *simulation* of the mental states of others, more a case of analogical reasoning of power of imagination (to put oneself in the other’s shoes, so to say) than a matter of intellectualistic theorising. There is also disagreement on whether the capacity has evolved in the evolutionary sense and about the appropriateness of evolutionary considerations (see in particular Meini 2001). But all agree that there is a basic capacity of mind-reading or of interpretation of others, which is essential to the competences of the normal human adult, and which has an history in the development of the mind of the child, although psychologists of a more Piagetian persuasion think that these structures develop in different ways, in a less “modularistic” fashion, with other stages, and are more linked to actions than the cognitive psychologists favourable to the innateness hypothesis are prepared to allow. (Karmiloff-Smith 1999)

Here I shall leave aside most of these issues, and shall concentrate on the acquisition of the epistemic concepts of belief and knowledge by children, that is on naïve epistemology.

3. Naïve epistemology

In a general sense, it can be said that most of the research on the theory of mind from Wimmer and Perner’s pioneering paper (1983) has been focused on naïve

epistemology, because it was concentrated on children's acquisition of the concept of *belief*. The major finding has been that children, before the age of three, do not have the concept of belief, because they fail to pass the "false belief task". This well known task, initially inspired by research on the "chimpanzee's theory of mind", consists in contrasting the cases where children are able to ascribe false beliefs to others, from the cases where they ascribe true beliefs similar to their own. The typical test is the "Sally Ann" test. The child is shown a doll, Sally Ann, who puts a chocolate bar in an opaque box, A, and goes away from the room. The experimenter transfers the chocolate bar in another location, say another opaque box B, and the child observes this. Sally Ann comes back. the child is asked: "Where will Sally Ann look for the chocolate bar"? The 3 years old child answers : "In box B". The 4 years old and later child answers: "In box A". This suggests that the 3 years old does not master the concept of a false belief, or of a belief which fails to represent reality, whereas the 4 years old does. The claim, then is that children before 4 do not have the concept of belief, because they do not have the possibility to contrast what they believe, and take to be true, from what others believe. They do not have the concept of a misrepresentation, or the contrast between subjective and objective.

At the earlier stage of the research on the child theory of mind, such results were interpreted as showing that children lack, before the age of 4, an intentional psychology, that is not only that they lack the concept of representation through belief, but also the notion of a desire content as well, and the general scheme of explanation of action through beliefs and desires. Given the centrality of the states of belief and desire for intentional explanation in general and for folk psychology, it was supposed that they do not have a theory of mind at all before the age of 4. But later research, especially by Wellman (Wellman 1991, Bartsch and Wellman 1995) has purported to show that there is an initial stage, towards 2 and 3, where children have a primitive understanding of the representational contents of desires: they are able to ascribe, from behavioural evidence (mostly through activities such as grasping objects, or trying to get) desires and wants. A primitive or a simple desire might have a content, as specific to a person and manifest in her behaviour. Bartsch and Wellman 1994 claim that children are able to attribute such simple desires, and talk about them (even about their force), without being able to master such concepts as belief, knowledge, or thought. In other words there may be a primitive kind of explanation of behaviour based on desires alone. Later, argues, Wellman , they have a belief-desire psychology.

In these studies, the specific state of belief does not seem to be isolated at a first stage, and even at later stages, it functions mostly for the explanation of action. This cannot constitute anything like a naïve *epistemology*, for such an epistemology would need the ability to contrast the notion of belief from the notion of *knowledge*. If we accept the claim (corresponding to condition (i) in the analysis of knowledge in § 1 above) that knowledge *presupposes* belief, it should be expected that children under the age of 4, since they lack the concept of belief, and given that (condition (ii)) knowledge implies truth, children do not have the concept of knowledge prior to acquiring the concept of belief. A fortiori, they should not be able to distinguish

between the cases of error (false belief) and the cases of ignorance (failing to know). They also should not be able to distinguish justified true beliefs from unjustified ones.

But the results gathered by a number of researchers in this field tend to contradict this hypothesis. In particular Perner (1991) has shown that very early on, children have a use of such terms as *know*, together with terms such as *think*, and that they refer to distinct mental states by such words. They also draw the ignorance-fact distinction, by the use of “I know” and “I don’t know”. As Bartsch and Wellman say :

“The children’s uses of the term *know* in making contrastives [of the kind: “I thought it was a crocodile, now I know it is an alligator”] involve primarily the ignorance-fact distinction. In talking about knowledge, children appropriately focus on the distinction between the fact that something is true and that the person does not know “that”. In using the term “think”, however, children often focus essentially on mental contents, encompassing a variety of contrastives. Children use the term *think*, at times, to talk about how two people can have two different mental contents, in individual contrastives. They use the term to talk about mental contents that are fictions and fantasies, in fiction-reality contrastives.” (Bartsch and Wellman 1995: 58)

These data are about children towards 3 and a half, and well before the age of 4. This seems to confirm that a naïve epistemology comes much earlier than the age of 4, and that it is in place in a transitional stage which is situated earlier than the full blown belief-desire psychology.

But the very use of the *word* “know” is certainly not evidence of the presence of the *concept* of knowledge in the form in which the adults use it. According to Perner (1991), two important features are related to the use of “know” in children. The first is that knowledge is associated with success: “when someone knows something she can answer correctly or perform successfully” (Bartsch and Wellman 1995: 59), and *true* is associated with success, to refer to what is so, or factual. This seems to imply a distinction between successful epistemic states, which are cases of knowledge, and unsuccessful ones. In this respect, Bartsch and Wellman say that children have the contrast between *know* and *guess* (or *idid*): “know” is used when the child has the proper *source* of knowledge and the relevant information.

Nevertheless, there is a disagreement between Perner on the one hand and Bartsch and Wellman on the other, over the second characteristic of the use of “know” by young children between 3 and 4. Perner claims that before the age of 4, children *do not* make reference to the sources of knowledge, and that they only refer to factuality or successful actions. But Wellman and Bartsch claim that they are sensitive to the sources of knowledge. For instance here are two pieces of dialogue:

Adam (3) Dat a duck
 Adult : That’s a duk
 Adam: How do you know dat a duck?
 Adult: What about the tails.

Adult : How can you tell a nice hawk from a mean hawk ?

Abe (3, 5) : Some hawks eat seashells. If you see a hawk eating a seashell, you know he's

mean

This feature is all-important, because one might expect that the concept of knowledge, as distinct from the concept of believing and thinking, should include some sensitivity to evidence, to the kind of information that justifies a belief, and not simply to the fact that the belief is true, or a case of successful knowledge. In other words, the grasp of the concept of knowledge seems to imply the third condition (iii) of justification above, which says that knowledge comes from a reliable source, or appropriate justification (although of course no data show any use of such a sophisticated notion as “justification” in children).

In recent work on children's naïve epistemology, Susan Carey (2001) seems to side with Perner: she claims that children between 3 and 4 do not display sensitivity to the reasons why knowledge is knowledge, nor to the evidence which confirms, or serves as a test of the truth of a belief. In other words, they claim to know, without being interested in *why* or *how*, they know (through the senses, or through testimony, or through another source). But the inquiry about why one knows, or about what makes a belief knowledge *is* the proper focus of epistemology: it is what epistemology is about. If Perner and Carey are right, then, children, at this stage, do not have a naïve epistemology. But, as we have seen, and even if we disregard Bartsch and Wellman's claim that children care about the sources of knowledge and keep their findings about the contrastive uses of “know” and “think”, this does not show that children do not have the contrast between thinking episodes (what we call “belief”) and knowledge proper (successful thinking). Hence in this sense they have a proper mastery of the concept of knowledge. So do they, or do they no, have at this stage an epistemology at all ? The answer, of course, depends upon what we mean by “epistemology” and how we analyse the concept of knowledge. We have assumed, with the philosophers, that it corresponds to the three conditions (i)(iii) (or (i)(iv)). But is this correct?

4. Knowing without believing

One of our major assumptions has been that the ordinary concept of knowledge implies the first condition, *i.e.* that someone who knows that *p* must at least *believe* that *p*. The fact that children seem to master at least a large part of the characteristics of the concept of knowledge before they have a complete belief-desire psychology thus becomes a mystery, if we assume that only when this psychology is in place can the child have the proper concept of belief, with the appropriate contrast with other mental states, such as desires. Or alternatively, we can say that the precocious uses of “know” by children do not imply that they have the complete concept of knowledge, but only a fragmentary, or improper grasp of this concept, just as they may have an improper grasp of the concept of belief. But there is another possible hypothesis,

which we have not yet considered: that, after all the “ordinary” concept of knowledge does not imply the belief condition (i).

On the traditional analysis of knowledge, knowledge is belief plus something else: first truth, second justification or warrant. It assumes that belief is conceptually prior to knowledge, and that belief is a necessary but insufficient condition for knowledge. We have seen why: first mere belief is no knowledge – the belief must be true, and second, there are cases of true beliefs which fail to be knowledge. Let us focus on the first condition. The reason for the primacy of belief in the traditional analysis is that belief is supposed to be an internal state, with no principled relation to the world. In other words, I might have false beliefs, which are representations, but of something which is not the case. When my beliefs are false, they are only internal to me, and they do not, so to say, reach out for some state of affairs in the world. By contrast, when my beliefs are true, I do not simply have a mental state, but one which corresponds to reality. By contrast with belief, the state of knowing that p cannot, on this analysis, be simply a mental state. It is a state which puts me in appropriate contact with the world. Hence it is not merely a mental state, for truth is a non mental component of knowing. In the traditional analysis, therefore, knowledge is a complex concept, partly mental (in so far as it presupposes belief), partly non mental (in so far as it presupposes the truth of the belief), together with the justification condition.

But there is an alternative analysis of the concept of knowledge, one which does not imply that knowing that p entails believing that p . It has proposed by Timothy Williamson (1995, 2000). On this view, knowing that p is a specific *state of mind*, which does not presuppose, both conceptually and psychologically, that one believes that p . On this view, “knowing” is a mental state on a par with “seeing that p ”, or “remembering that p ”. Such states or attitudes are called “factive”, because they imply the truth of the proposition which is their object: if I see that p , then p ; if I remember that p , then p . “Knowing” has a special place within factive attitudes, for

(FA condition) if X FA’s that p (where “FA” denotes a factive attitude) , then X knows that p

Examples :

- (1) If X sees that p , then X knows that p
- (2) If X remembers that p , then X know that p

The proposal is that knowing is the most general factive mental state, because it is implied by any factive attitude. In contrast, believing is not factive: if one believes that p , it does not follow that p . We might draw the contrast in terms used by Vendler (1972): “believes” takes *propositions* as objects, whereas “knows” takes *facts* as objects.

Williamson claims that knowing is not only a distinct kind of state from believing, which does not presuppose it, and that we can learn to use “know” independently of our “use of “believe”, but also that knowing is conceptually prior to believing, and

that belief is a kind of knowing. In other words, to believe that p is to treat p as if one knew that p :

(K') One believes that p if and only if one has an attitude to the proposition p which one cannot discriminate from knowing

This does not imply that there is no contrast between knowing that p and merely believing that p .

As he says :

“If believing that p is, roughly treating p as if one knew p , then knowing is in that sense central to believing. Knowledge sets the standards of appropriateness for belief. that does not imply that all cases of knowing are paradigmatic cases of believing, for one might know p while in a sense treat p as if one did not know p – that is while treating p in ways untypical of those in which subjects treat what they know. Nevertheless, as a crude generalisation, the further one is from knowing p , the less appropriate it is to believe p . Knowing is in this sense the best kind of believing. Mere believing is a kind of botched knowing.” (Williamson 2000; 47)

On this view, believing is not a factor of knowing at all. These are two distinct mental states.

But knowing is the more fundamental state. In fact, we can construct assertions of belief of the form “I believe that p ” as involving claims to *knowledge*. On this view, to assert that p is to represent oneself as *knowing* that p . Several considerations point in this direction. When someone asserts something, and when we want to question what he has asserted, we say: “How do you *know*?” (See Unger 1981). Williamson (2000: 246) also invokes the case of lotteries. If I have bought a ticket out of 1000 others in a lottery, I may have a very high probability (0, 9999) for believing that it will not win, but that does not entitle me to *assert* that it will not win. Even if my ticket, expectedly, does not win, you can criticise my assertion “It will not win” by saying : “But you did not *know* that it would not win”, for on your evidence, I had only a very strong probability of winning, but no knowledge of it. So it seems to go with the act of assertion that the speaker has a special authority, and not simply a claim to mere belief, over what he asserts.

That I take myself to know that p when I assert p does not imply that I know that p , just as that assertion aims at truth does not imply that what I assert is true. But it implies that assertion carries at least the potential to express knowledge, and not simply belief. Knowledge is the standard by which we judge ourselves to be believing, and when we express our beliefs linguistically, the standard of assertion.

5. Application to naïve epistemology

This rival account of knowledge – which we might call the independence account, for it makes knowing a distinct kind of mental state independent from believing – has several consequences. First it predicts that we may learn the use of the concept “know” independently from our learning of the use of “believe”. Second, it says that the concept of knowledge is more fundamental than, and has priority over, the concept of belief. In fact it’s not “knows” which is mastered in terms of “believe”, but the other way round. Third, because knowing is not believing plus something, there is a concept of knowledge which is independent from the “plus” which goes with true belief on the traditional analysis: there are unanalysable uses of “know” which do not appeal to justification or to the sources of knowledge. Or rather, if we think in terms of principle (FA) above, when we have appropriate reliable sources of knowledge, such as seeing, hearing or remembering, they entail that one knows the relevant item. This suggests that the use of “know” is independent of the kind of sources or of evidence that one has for knowing. So “know” is a verb which can be used without alluding to our sources. In this respect, the primary use of “know” is closer to the *knowledge how* of skills and aptitudes, and farther from *knowing that*. When you know how to ride a bicycle, or when you are said to know Italian or French, the question “how do you know?” or “Are you justified in knowing it?” do not make sense.

Of course, none of this entails that we cannot inquire, at a later stage of reflection, about the sources and justifications of our knowledge. But it entails at least that there are some basic kinds of knowledge which do not call for justification, in the sense of asking why we do believe justifiably the contents of our beliefs. The appropriate epistemological contrast, therefore, is not between knowing and believing, but between *knowing* and *not knowing*, or between knowledge and ignorance.

Now if we compare this independence account of knowledge with the results of the psychologists’ investigations upon “naïve epistemology” in the child, the similarities should be obvious. Children seem to use “know” independently of “believe”, and possibly prior to a complete mastery of the latter concept. They treat knowledge as successful representations of facts. They do not (at least on Perner’s and Carey’s account) inquire about the sources of knowledge, and seem to have a mastery of this verb without a complete mastery of the reasons for knowing, or of the justifications for it. They tend to contrast more easily knowledge and ignorance than knowledge and belief. If these analogies are properly drawn, I suggest the following hypothesis: not only they learn first a primitive concept of knowledge which does not conform to the traditional analysis (i)-(iv), but also there is no reason to say that the concept that they acquire is not *the* basic concept of knowledge, if the independence account is correct.

6. Conclusion

What conclusions can we draw about this for the relationships between philosophy and psychology? I started by saying that the philosopher’s epistemological concern with the analysis of the concept of knowledge might diverge from the psychologist’s concern with this concept, because the latter’s enterprise is mostly

descriptive, and deals with our actual uses, in adults and in children, of concepts belonging to our folk psychology or naïve psychology, whereas the former's enterprise is mostly normative, and deals with all possible uses of these concepts by a rational being in general. If we draw the contrast in this way, we may predict that there will be strong divergences between the two inquiries. Philosophers and psychologists might talk at cross purposes, and not use the very same concepts, *belief*, *knowledge*, or *evidence* when they deal with “epistemological matters”. Or it may be that the normative inquiry on knowledge can be reached only when we deal with adults, with the rich variety of terms which denote cognitive states and their differences, whereas the child's psychological understanding of these states might be incomplete. But this is not what we find when we look at the empirical inquiries. We discover that, at an early stage, the child has at his disposal a rich array of epistemological concepts. Moreover, if we reject the traditional analysis of knowledge as justified true belief, and accept the idea that knowing might be an independent mental state from believing, we have some reasons to say that the concept of knowledge that the child learns at early stages is not obviously deviant or wrong. In this sense, naïve epistemology might contain the premises of evolved, adult, or even philosophical epistemology, *properly conceived*. Change the normative theory, and you will change the evaluation of the relevant facts, or see them in a new light. The facts in question might even give stronger support to the normative reading, just as the normative reading will give support to a distinct account of the facts. There is? then, a trade off between normative and descriptive. This does not detract from the normative and a priori character of philosophical epistemology, for the independence account is reached mostly through normative considerations, and because epistemology cannot be simply a description of how we acquire the concept of knowledge. But it shows, if I am right, and if the independence account has some credentials, that there is much more continuity between the two enterprises that it is ordinarily thought.

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